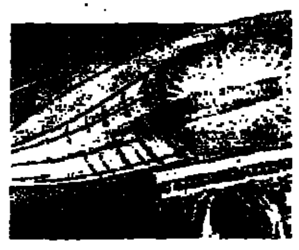
FINANCIAL TIMES

Hungary
Soap opera star puts Nato case
Page 3

EU expansion
Turkey's a cousin not a gatecrasher
Edward Mortimer, Page 12

Asian business
When family strength can be a weakness
Page 13



Today's surveys
FT-IT Review; European Business Locations
Separate sections

World Business Newspaper http://www.FT.com WEDNESDAY NOVEMBER 5 1997

THE GLOBAL COMPANY

Tore Bertilsson
SKF

'For all of us, there is a growing pressure to expand in emerging markets'

Part 11: Page 10

WORLD NEWS

EU/US talks on climate change emphasise gap in attitudes

A huge gap between European Union and US attitudes to the issue of climate change was underlined when EU officials put to their US counterparts the argument for tough action to limit emissions. Page 7

Russian privatisations hit
The Russian government faces a dilemma in deciding how aggressively to press ahead with its privatisation programme in the face of a severe shortfall in state revenues and shaky financial markets. Page 2

Greece, Turkey to co-operate
The Greek and Turkish prime ministers have pledged to work for better relations, while making clear there will be no quick solution to disputes. Page 3; The black sheep, Page 12

Islamists boycott Jordan poll
Jordanians voted yesterday in the first parliamentary election since the signing of a peace agreement with Israel in 1994. The poll was boycotted by the Islamic Action Front (IAF), the largest opposition party. Page 4

Algerian MPs' protest stopped
Algeria's army-backed government broke up a demonstration by opposition members of parliament protesting against alleged electoral fraud. Page 4

German arms sale trial
Four German businessmen alleged to have made illegal arm sales to Iraq went on trial in the third such case in recent weeks. Page 2

Brazil plans budget cuts
The Brazilian government is preparing new cuts in next year's budget in an attempt to repair the damage to the credibility of its economic policy caused by the turmoil in world financial markets. Page 7

Iraq to delay expulsions
Iraq agreed to extend its deadline for the expulsion of American UN arms inspectors in response to a request by UN secretary-general Kofi Annan. Earlier report, Page 4

US pledge over Slovakia
The United States does not intend to isolate Slovakia, despite political problems which have excluded it from the first round of Nato expansion. Page 2

Bishops visit Brussels
Nine Polish Roman Catholic bishops travelled to Brussels for a three-day visit to discuss the religious side of Poland's prospective integration in the EU. Page 2

South Korean presidential bid
Rhee In-je, a former provincial governor, launched an independent bid in South Korea's presidential election which polls suggest he might win. Page 6

Germany backs solar energy
The Bonn government announced a programme of public financial support aimed at turning Germany into a leading producer of solar cells. Page 3

NZ prime minister faces test
Jenny Shipley, due to take over as New Zealand's first woman prime minister, faces a formidable task as she seeks to boost the popularity of the governing National Party. Page 6

BUSINESS NEWS

Barclays fails to find buyer for entire BZW equities arm

UK bank Barclays has failed to find a buyer willing to take over the entire equities and corporate advisory businesses of the BZW investment banking arm. Swiss-US investment bank Credit Suisse First Boston has reached a preliminary deal to buy just the UK and continental European equities businesses. Page 15; Lex, Page 14

Financial markets in Thailand soared as Chavalit Yongchaiyudh said his resignation as prime minister would be effective at midnight tomorrow. Page 14; Empires can strike back, Page 13; Currencies, Page 23; World Stocks, Page 34

The Star Alliance, led by United Airlines of the US and Germany's Lufthansa, has been accused by three of the world's biggest buyers of corporate air travel of failing to deliver price benefits to passengers. Page 4

South Korean businessmen are in Havana to look at Cuba's potential as a new market, despite South Korea being a close ally of the US, Cuba's arch-enemy. "Business is business," said one delegate. Page 4

Italy's newly privatised stock exchange moved to simplify regulations in a bid to halt the drift of medium-sized companies to New York and other overseas markets. Page 15

The US congress began to consider legislation which could end the yearly congressional battle over China's trade status. Page 14

Aetna, US life and health insurer, announced operating profits of $59.1m for the third quarter, down sharply from $136.9m in the same period last year. Page 16

Air Canada has chosen Rolls-Royce engines to power its twin-jet Airbus A330-300s in an order worth up to $450m to the UK manufacturer. Page 4

Borders, the second largest US book retailer, saw its shares jump 11 per cent after it announced a two-year agreement with Infoseek. Page 16

Car registrations in Japan tumbled 13 per cent in October, underlining continuing fragility in consumer confidence. Page 6

Japanese financial institutions rallied round with funds to compensate customers of Sanyo Securities, which has filed for bankruptcy protection. Page 19

Thailand's cabinet approved a long-delayed telecommunications master plan that paves the way for gradual privatisation and liberalisation of the country's telecommunications sector. Page 6

A Hong Kong listing is being sought next year by China International Power Holdings, a unit of China's Ministry of Power, according to bankers. Page 19

Trustor assets
We apologise for a currency conversion error in yesterday's editions which resulted in the assets alleged to have disappeared from Trustor being overstated in dollar terms. Report, Page 15

Paris nominates own man as president ahead of Duisenberg

French put central bank leadership in turmoil

By Robert Graham in Paris, Gordon Cramb in Amsterdam and Andrew Fisher in Frankfurt

France yesterday upset plans for the future governorship of the European Central Bank by proposing its own candidate, Jean-Claude Trichet, head of the Bank of France.

The announcement casts into doubt the German-brokered candidature of Wim Duisenberg, the Dutch head of the ECB's forerunner, the European Monetary Institute.

It also triggers an open conflict for the presidency of the bank. Also at issue is what kind of monetary policy will operate in the future euro currency zone.

The French move stunned the European Commission. Officials had hoped that France would refrain from any action that could complicate an already difficult final run-up to Emu.

The Dutch government said it would contest the initiative. German bankers and politicians reacted with surprise and dismissed the idea that the move was part of a deal being arranged by the countries' governments.

The French government, in close co-ordination with President Jacques Chirac, has been considering promoting a French candidate to counter Mr Duisenberg for at least two weeks, according to officials.

The German government was told in advance of France's intentions and indicated it would not formally react until the French made the announcement.

The Bundesbank has made clear its view that Mr Duisenberg should be the first president of the European Central Bank, but had no official comment on the French statement. The finance ministry also refused to comment.

The French move came on the eve of an informal meeting in Paris between German Chancellor Helmut Kohl and President Chirac and premier Lionel Jospin, the prime minister.

The Dutch government said it believed a "broad Europe-wide consensus" existed among member states that Mr Duisenberg should accede to the job from his current role.

The Hague and the Dutch central bank, which Mr Duisenberg headed for more than 15 years before moving to Frankfurt this summer, both pronounced themselves "very surprised" by the French proposal.

"We see no reason for the nomination. Mr Duisenberg's reputation is undisputed and by opening a discussion at this time the process and credibility of Emu is undermined," said the centre-left Dutch coalition.

The French decision has been taken in full awareness of all the diplomatic problems it will create. "We wouldn't have done this if we hadn't seriously believed a Frenchman should be in the job," said one official close to the decision. "We have never concealed our opposition to the candidature of Mr Duisenberg," he said.

European economists noted that France had lost several battles over Emu, notably on the site of the ECB, the establishment of the stability council on budgetary restraint and the name of the currency itself – to be called the euro instead of the ecu. So this move could be seen as an attempt by France to assert itself, even if Mr Trichet was not chosen.

Britain will be primarily responsible for settling the issue when it takes over the rotating EU presidency on January 1.

French premier Lionel Jospin yesterday: his government's plans for the ECB governorship stunned the European Commission Picture, AP

Man of many talents, Page 2
Memories of 1992, Page 9
Editorial Comment, Page 13

Krupp and Thyssen to bury old hostilities in merger

By Peter Norman in Bonn

Krupp Hoesch and Thyssen, the German engineering groups locked in an acrimonious takeover battle this year, said yesterday they had agreed to merge.

The surprise announcement shortly after German stock markets closed, presages creating a company with annual sales of about DM65bn ($37bn) and about 190,000 employees. It would be Germany's biggest engineering group by far and, in terms of sales, fifth or sixth ranking industrial group.

The news followed a meeting of the groups' supervisory and managing boards to consider reports of 19 working groups drawn from both companies and charged with exploring possible benefits and drawbacks of a merger.

The reports, finalised on Friday, concluded that a merger would give both companies the chance to improve their position in world markets and strengthen their core activities in engineering, industrial services and steel. They pinpointed "synergies of at least DM450m" a year that more than justified the acceptance of unspecified one-off costs.

They decided the effects on employment would be slight and spread through the world. Any job losses would be offset "over a foreseeable period" through new employment opportunities arising from the increased dynamism of the combined group. Shares of Thyssen and Krupp were suspended until further notice.

However both companies advanced sharply in the unofficial "grey market". Thyssen, which ended official floor trading in Frankfurt at DM411, up 0.50 pfennigs, was quoted as high as DM428. Krupp, which had advanced strongly by DM23.80 to DM374 in official trading was later quoted unofficially at between DM390 and DM400. A merger vindicates the strategy of Gerhard Cromme, Krupp chief executive, who in March planned a hostile debt-financed bid for the larger Thyssen. The plan was aborted after protests from trade unions and politicians in Bonn and Düsseldorf, capital of North

Continued on Page 14
Lex, Page 14
Lure of wedlock, Page 17

Jospin told to get tough on strikers

By Robert Graham in Paris

France's neighbours demanded yesterday that the Socialist-led government in Paris take firmer steps to end the truck drivers' strike that has disrupted trade, blocked motorways and rationed fuel in parts of France.

Governments and businesses in Britain, Germany, the Netherlands and Spain criticised inaction by the French government, and the European Commission raised the possibility of legal measures unless France ensured free movement of goods on its roads.

"If this strike continues, we will act against French interests. We will boycott French goods and stop them crossing the border," said Pedro Barato, president of Spain's largest farmers' association.

Tony Blair, the UK prime minister, urged his French counterpart, Lionel Jospin, to intervene and help British drivers and haulage companies caught in the strike.

Mr Jospin's government's soft approach towards dismantling strikers' barricades on strategic roads produced a rebuke from Jacques Chirac, the Gaullist president, whose office issued a statement saying it was up to the government "to take the necessary measures to assure the free movement of traffic".

The president's comment coincided with growing opposition criticism of the government's handling of the dispute, which has seen barricades set up in more than 140 places.

Jean-Claude Gayssot, the

Continued on Page 14
Balancing act, Page 2
Observer, Page 13

Yahoo Japan IPO soars as internet fever strikes

By Michiyo Nakamoto in Tokyo

Internet fever hit the Japanese stock market yesterday, as the shares of Yahoo Japan, an information search service company, soared from an initial public offering price of Y700,000 ($5,820) to Y2m on their first day of over-the-counter trading.

The closing price values Yahoo Japan, which was founded less than two years ago, at 192 times expected earnings in its current year to March 31 1998.

Analysts said that in addition to enthusiasm about the internet and Yahoo Japan's strong brand image, the sharp rise in the share price was probably due in part to the small number of shares made available to the public. Only 975 shares, 3 per cent of those issued, were sold to the public, and only 318 were traded yesterday.

The feverish reception is reminiscent of that which greeted the stock market launch of Yahoo Japan's US parent, Yahoo!, in April 1996. Priced at $13, Yahoo! shares opened at $24.50 and shot up to $42.50 later in the day, giving the two-year-old company, which had yet to turn a profit, a market capitalisation of $1.1bn.

Yahoo Japan is a joint venture between Yahoo! in the US, which has 37 per cent of the shares, and Softbank, the Japanese PC software distribution and internet

Continued on Page 14

Markets

STOCK MARKET INDICES		
New York: lunchtime		
Dow Jones Ind Av	7,686.78	(-7.61)
NASDAQ Composite	1,629.86	(-0.02)
Europe and Far East		
CAC40	2,774.9	(-13.06)
DAX	3,812.45	(-41.62)
FTSE 100	4,887.4	(-9.0)
Nikkei	16,500.1	(+41.18)
US LUNCHTIME RATES		
Federal Funds	5½%	
3-mth Treas Bills: Yld	5.218%	
Long Bond	101⅝	
Yield	6.226%	
OTHER RATES		
UK: 3-mo Interbank	7¼%	(7⅝%)
UK: 10 yr Gilt	105.03	(104.875)
France: 10 yr OAT	99.13	(98.89)
Germany: 10 yr Bond	102.89	(102.86)
Japan: 10 yr JGB	109.55	(109.87)
NORTH SEA OIL (Argus)		
Brent Dated	$19.17	(19.45)

GOLD		
New York: Comex		
(Nov)	$314	(313.6)
London:	$315.65	(313.15)
EXCHANGE RATES		
Dollar		
New York: lunchtime		
£	1.69605	
DM	1.72115	
FFr	5.7654	
SFr	1.4024	
Y	122.055	
London:		
£	1.6858	(1.677)
DM	1.721	(1.7382)
FFr	5.7644	(5.806)
SFr	1.4049	(1.4152)
Y	121.86	(120.78)
Tokyo close:		Y 121.65
Sterling		
DM	2.901	(2.9116)

© THE FINANCIAL TIMES LIMITED 1997 No.33,440
London · Leeds · Paris · Frankfurt · Stockholm · Madrid · New York
Los Angeles · Tokyo · Hong Kong

[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]

45
0 770174 736135

Inside

South-east Asia's financial turmoil could benefit Singapore: Page 34

Trichet: a central banker with many talents

By David Owen in Paris

Jean-Claude Trichet may never become president of the future European Central Bank – the wish of the French government – but bankers and economists say that would be no reflection on his talents.

Mr Trichet, 54, took over as governor of the Bank of France as it secured independence in monetary matters in 1993. He has since presided over a period of unprecedentedly low inflation and rising international confidence in the French franc.

One memorable sign of this came in May 1996, when long-term French interest rates sank below German rates for only the second time in modern bond market history. Analysts said at the time that the

Trichet: presided over a period of low inflation

move had as much to do with German weakness as with French strength. But the turnaround proved reasonably sustained, with German bonds closing the "yield gap" only recently.

Mr Trichet's growing international reputation has not exempted him from the sort of regular domestic criticism over interest rate levels that is an occupational hazard for central bankers.

This has continued despite the French economy's recent upswing. Indeed, there are signs that the arrival of a leftwing majority in parliament may cause the criticisms to intensify.

Last month, for example, the parliamentary finance commission held an unusual meeting with the Bank of France's monetary council, which is headed by Mr Trichet, and asked for an explanation of a recent interest rate rise. The meeting initially took the form of a summons after the bank raised its intervention rate by 20 basis points in line with the German Bundesbank. The bank only agreed when the summons was toned down to an "invitation" to appear before the commission.

Born in Lyons, Mr Trichet was chief of staff to Edouard Balladur, former prime minister, between 1986 and 1987, while Mr Balladur was economy, finance and privatisation minister. Mr Trichet then became director of the French treasury, considered the most prestigious administrative position in government, where he remained until 1993 in spite of the return to power of the Socialists. He was also president of the Paris Club, the international creditors' organisation, between 1985 and 1993.

Imbued with the central banker's gift for discretion, he also has an entertainingly dry, almost mischievous, sense of humour which occasionally surfaces in private conversation.

FINANCIAL TIMES
Published by The Financial Times (Europe) GmbH, Nibelungenplatz 3, 60318 Frankfurt am Main, Germany. Telephone ++49 69 156 850, Fax ++49 69 596 4481. Represented in Frankfurt by J. Walter Brand, Wilhelm J. Brüssel, Colin A. Kennard as Geschäftsführer and in London by David C.M. Bell, Chairman, and Alan C. Miller, Deputy Chairman. The shareholder of the Financial Times (Europe) GmbH is Pearson Overseas Holdings Limited, 3 Burlington Gardens, London, W1X 1LE. Shareholder of this company is Pearson plc, registered at the same address
GERMANY:
Responsible for Advertising content: Colin A. Kennard. Printer: Hürriyet International Verlagsgesellschaft mbH, Admiral-Rosendahl-Strasse 3a, 63263 Neu Isenburg ISSN 0174 7363. Responsible Editor: Richard Lambert, c/o The Financial Times Limited, Number One Southwark Bridge, London SE1 9HL.
FRANCE:
Publishing Director: P. Maraviglia, 42 Rue La Boetie, 75008 PARIS. Telephone (01) 5376 8254, Fax (01) 5376 8253. Printer: S.A. Nord Eclair, 15/21 Rue de Caire, F-59100 Roubaix Cedex 1. Editor: Richard Lambert. ISSN 1148-2753. Commission Paritaire No 67808D.
SWEDEN:
Responsible Publisher: Hugh Carnegy 468 618 6088. Printer: AB Kvällstidningen Expressen, PO Box 6007, S-550 06, Jönköping.

R

A calculated gamble for France

By Lionel Barber in Brussels

The nomination of Jean-Claude Trichet as a candidate to be the first head of the European Central Bank is a calculated gamble which has the fingerprints of Jacques Chirac, France's Gaullist president, all over it.

Mr Chirac, who is due to hold talks in Paris today with Helmut Kohl, Germany's chancellor, has sent a firm signal that the French are determined to stop European economic and monetary union being settled purely on German terms.

French officials have persistently spread rumours about an informal understanding with Germany over the ECB. In this scheme, Bonn had supposedly guaranteed that the ECB's first president would be French, in return for French approval for the bank to be located in Frankfurt.

German officials have repeatedly denied knowledge of such an agreement but have signalled firm support for Wim Duisenberg, the Dutch president of the European Monetary Institute, the forerunner of the ECB.

Mr Chirac was said to have been incensed at the manner in which Mr Duisenberg was anointed last year as the favourite for the ECB job, after the early retirement of Alexandre Lamfalussy as EMI president.

In domestic terms, Mr Chirac's gamble looks cute. He has put forward a Frenchman to take over one of the most prestigious international financial jobs in the world, and has forced the Socialist-led government in Paris to fall into line.

More cautious members of Lionel Jospin's government might have preferred to have avoided another power-play with Bonn after the less than successful campaign last June to dilute the German-inspired stability pact on budgetary discipline for countries adopting the euro.

Above all, the nomination of Mr Trichet is a bargaining chip in the next round of talks on the single currency. These cover the selection of countries which meet the entry criteria for Emu, the composition of the executive board of the ECB, and, indirectly, interest rate policy for euro-bloc members.

The common factor in French calculations is Italy. France wants the Italians inside Emu because it is worried about the competitive threat of a weak lira outside the single currency zone. Italian (and Spanish) membership is also viewed as a geopolitical counterweight to Germany.

But if Italy is a founder member of Emu, German officials, as well as the Bundesbank, have hinted the price would be higher interest rates to reflect the risk premium ahead of the euro's launch on January 1, 1999.

France agrees on the need for a convergence of interest rates in the Emu bloc, but Mr Trichet, in his capacity as governor of the Bank of France, has warned privately against higher rates, arguing it could stymie the nation's economic recovery.

In this sense, his candidacy is a foretaste of future battles over monetary policy in the euro zone.

Finally, the Trichet nomination marks a second shot in the battle over the composition of the ECB board. Last week, the German government signalled that it was ready to argue in favour of keeping one of the six executive seats open for Britain. The French move looks like a last throw of the dice to ensure that Paris wins the vice-presidency, if not the presidency.

Editorial Comment, Page 13

A balancing act for Jospin over truckers

By Robert Graham in Paris

The French truck drivers' strike is forcing the government of Lionel Jospin, the prime minister, to steer through a minefield of conflicting interests.

The Socialist-led administration has to satisfy its own supporters, not least the poorly paid truckers working long hours who are protesting against their conditions of employment. But equally it cannot alienate further the business community, already disturbed by Mr Jospin's decision last month to introduce a 35-hour working week by 2000.

On top of this, Mr Jospin must convince both the French public and France's European trading partners that he can achieve an early end to a strike which, in only two days, has started to cause serious disruption to the movement of goods by road.

It will require considerable skill – and luck – to emerge from this crisis balancing all these elements.

Given that the truckers and the main haulage groups were well prepared for the nationwide blockades which began on Sunday, the government appears to have underestimated the willingness of both sides for a confrontation.

The government held back from trying to encourage a deal until the last minute, arguing that the dispute was a private sector affair.

Jean-Claude Gayssot, the communist transport minister, did not formally enter the picture until last Thursday.

Once the minister was involved, he found himself presiding over an accord last Saturday which was boycotted by the main federation of hauliers representing the large trucking companies, and which was then unceremoniously rejected by rank-and-file truckers in different unions.

This accord, involving an immediate 6 per cent pay rise, may yet be the basis of a final accord. Nevertheless, it failed to head off industrial action strangling the principal arteries of the French economy.

Mr Gayssot on Monday visited a late-night truckers' picket outside Paris, demonstrating his sympathy with their protest and underlining the government's dilemma. During its five months in office, the government has carefully honoured its election pledges and courted its Socialist and Communist supporters.

How then can it coax a better deal from trucking companies which already fear French haulage costs will be uncompetitively high when European deregulation begins next year?

Mr Jospin's decision to cut the working week provoked the resignation of Jean Gandois, head of the Patronat employers' federation, and confirmed it in its view the government was biased towards labour.

British war graves at Bayeux, Normandy. Inset: Mary McAleese, president-elect of the Irish Republic. There is controversy over whether Mrs McAleese should wear a commemorative poppy at her inauguration on November 11, Remembrance Day in Europe AP, Reuters

McAleese faces first test...over poppies

By John Murray Brown in Dublin

Mary McAleese, the Irish president-elect, is facing her first controversy – over whether or not to mark next Tuesday's Remembrance Day commemorations, coincidentally the day of her own inauguration.

Asked whether she might wear a poppy in honour of the thousands of Irishmen who died fighting for the British Army in the two world wars, Mrs McAleese, a Belfast Catholic and the first UK citizen to become Irish head of state, said it was "an interesting idea".

Noel Dempsey, Fianna Fail environment minister and manager of her election campaign, hinted she was unlikely to wear a poppy, arguing this would put pressure on her to display the Easter Lily, which symbolises those who died in the 1916 rebellion against the British. By tradition the Irish shamrock is the only emblem worn by Irish presidents.

Irish presidents attended the Cenotaph service in London from independence in the 1920s until Eamon de Valera forbade it in 1934. With the Northern Ireland Troubles, those attitudes hardened.

It was only in 1995 that John Bruton became the first Irish prime minister to attend the Remembrance Day service at Dublin's Islandbridge, a memorial designed by Edwin Lutyens, the architect, and paid for by public subscription.

That event was also attended by Tom Hartley, then chairman of Sinn Fein – a remarkable gesture given that, during the Troubles, British servicemen were considered "legitimate targets" for the IRA, Sinn Fein's military arm.

The latest controversy has been seized on as a test of Mrs McAleese's claims to be a bridge builder – to reconcile Irish nationalists with the Protestants, who want to remain part of the UK.

Jane Leonard, historian at Queen's University in Belfast, said it was often forgotten that Catholics were as eager to volunteer to serve in the first war as Protestants – to encourage the politicians in Westminster to implement the promised Irish self-rule or Home Rule. The Easter Rising, however, turned what was an overwhelming majority in favour of self-government within the UK into a majority for separation.

'Consult workers or face sanctions' call

By Neil Buckley in Brussels

Possible sanctions against companies which close factories or take decisions affecting the future of workers without consulting them in advance will be suggested today by the European Commission.

Sanctions could involve rendering legally null and void the effects of any decisions taken without following standard consultation procedures.

They would be designed to prevent a repeat of cases such as that of Vilvoorde, north of Brussels, where French car maker Renault announced without warning it was closing an assembly plant with the loss of the jobs of 3,100 workers. The handling of the closure was condemned by Belgian and French politicians and by the Commission.

The sanctions idea is part of a plan to introduce minimum standards on proper consultation of workers at national level throughout the European Union.

The Commission is publishing a consultation paper on the issue today. It suggests that the sanctions against companies should be "effective and dissuasive".

The European Works Council directive – adopted under the Social Chapter of the EU's 1992 Maastricht Treaty – already requires multinational companies above a certain size to set up EU-wide worker consultation bodies.

But the Commission said EU states' national laws often do not adequately protect workers in companies not covered by the works council directive.

Two EU states, the UK and Ireland, have no laws recognising the fundamental right of workers to be consulted.

Where rights do exist, Padraig Flynn, social affairs commissioner, said they are sometimes called into question because of the lack of proper sanctions to enforce them.

Mr Flynn wants EU-wide union and employers' organisations to reach a collective accord outside the normal EU process, as they already have done on part-time work and parental leave.

Such collective accords were introduced by the so-called Agreement on Social Policy, a protocol to the Maastricht Treaty.

Moscow faces dilemma on sell-offs

The Russian government faces a tricky dilemma in deciding how aggressively to press ahead with its privatisation programme in the face of a severe shortfall in state revenues and shaky financial markets.

The instability which rocked bourses last week is still ruffling Russian markets and has led to a sharp drop in share prices and a rise in longer-term bond yields. Investor confidence was further knocked by last week's decision by the International Monetary Fund to delay disbursement of a $700m tranche of its $10bn loan because of poor rates of tax collection.

The Russian government is planning to sell sizeable stakes in four oil companies over the next few months, aiming to raise more than $4bn. But some private sector borrowers, including Rostelekom, the Moscow telephone company, and the Red October confectionery plant, have recently postponed forthcoming debt issues because of the instability in the world financial markets.

"The Russian government wants to sell as much as they can for revenue purposes. But unfortunately for them the people who are willing to buy these assets will not be so numerous as they were before," said Brigitte Granville, Russia economist at J.P. Morgan, the US investment bank.

A beggar in downtown Moscow. Many ordinary Russians are being hit by adverse economic conditions Reuters

However, the sales of the most attractive state companies have retained the interest of big private companies. Analysts predict a fight for control of the government's 63 per cent stake in the Rosneft oil group, which could raise more than $1.5bn. Lukoil and Gazprom, Russia's two biggest energy companies, announced this week they intended to launch a joint bid. Other powerful financial and industrial groups, such as Oneximbank, Sibneft and Yukos, have expressed an interest. Also, at least two western oil giants, Royal Dutch/Shell and BP, are believed to be considering participation in the Rosneft auction, which the government vows will be the most transparent to date.

Par Mellstrom, head of research at Brunswick, the Moscow-based stockbrokers, said Rosneft had great strategic importance and should still attract a lot of interest from big industrial concerns. "Bad market conditions will lower the price slightly but the strategic needs of all these big groups should lead to a high price. The company which buys Rosneft will immediately improve their position in the industry for both offensive and defensive reasons," he said.

It is more difficult to predict what the demand will be for shareholdings in Slavneft and the Eastern Oil Company, two middle-ranking oil companies, although the Alfa Group seems certain to win control of the Tyumen Oil Company, the smallest of the oil companies to be put up for sale, another medium-sized oil company.

So far this year, the Russian government has exceeded its target for privatisation revenues, largely thanks to the sale of a 25 per cent stake in Svyazinvest, the national telecommunications company, for $1.9bn.

The state property committee announced yesterday that in the first 10 months of 1997 it had raised Rbs11,470bn from sales of state assets – 75 per cent more than budgeted.

But for the moment, foreign portfolio investors appear wary of the Russian equity and Treasury-bill (GKO) markets. A sharp drop in yields on short-dated government paper and a consequent rise at the longer end of the market have been cited by some analysts as a sign that investors are looking to reduce their exposure to the Russian domestic debt market.

John Thornhill

NEWS DIGEST

Dini attacks pension accord

Lamberto Dini, Italy's foreign minister, has launched an unexpected attack on this week's pensions reform agreement between government and trade unions, claiming it makes no structural reductions in spending and unfairly penalises the middle class. As Romano Prodi's government prepares to table its final pension proposals in parliament today, Mr Dini, who implemented the last set-piece reform of pensions in 1995, claimed the negotiations had produced an unfair and unbalanced package.

Mr Dini said the government's final proposals would penalise Italy's self-employed population, forcing them to make higher pensions contributions and restricting index-linked rises for people getting larger payouts in retirement.

Mr Dini's comments were yesterday viewed in some political circles as subtle electioneering on behalf of his small centrist party, Italian Renewal, ahead of important mayoral elections due to be held later this month.

The comments added to a growing impression that the deal agreed after talks set up by Mr Prodi had failed to create a sustainable reform of huge pensions liabilities, which are currently around 14 per cent of gross domestic product. *James Blitz, Rome*

■ HAMBURG ALLIANCE

SPD, Greens agree terms

The Social Democrats (SPD) and members of the radical Green party have agreed to form an alliance to govern the city state of Hamburg, after the left emerged weakened from municipal elections in September.

The agreement ended six weeks of negotiations on a new administration for Hamburg, where the Christian Democratic Union (CDU) of Chancellor Helmut Kohl failed to win but did well in elections on September 21. Hamburg has traditionally been a fief of the SPD.

The CDU had proposed forming an alliance with the SPD but the Social Democrats, who will be fighting Mr Kohl in general elections in September, refused. The SPD party has now formed anti-CDU alliances with the Greens in a total of five of Germany's 16 states.

In Hamburg, the Greens will run three ministries – science and higher education, environment and city, parliamentary relations and European policy.

The agreement must be signed by the two sides and then approved by the Greens on Sunday and by the SPD on Monday. *AFP, Hamburg*

■ ARMS TO IRAQ

German businessmen on trial

Four German businessmen alleged to have made illegal arm sales to Iraq went on trial yesterday in the third such case in recent weeks.

Four businessmen from the Havert company and a subsidiary went on trial in the western German city of Darmstadt, charged with supplying equipment worth DM8.5m ($4.8m) for making ramps to launch Scud missiles.

Three directors of the company and a colleague are accused of illegally exporting the products from 1988 to 1990. They are also charged with fraud to obtain state export credit guarantees worth DM715,000.

On Monday, three Germans were each sentenced to two years in prison in the west German city of Mannheim for illegally exporting to Iraq machines used for making missile parts. *AFP, Darmstadt, Germany*

■ NATO EXPANSION

US pledge on Bratislava

The US does not intend to isolate Slovakia, despite political problems which have excluded it from the first round of Nato expansion, Washington's ambassador said in a newspaper interview.

"So far, we have not shut any doors. We have just said that the politics and the laws adopted in Bratislava excluded this country from the first group of the Nato membership candidates," Ralph Johnson said in yesterday's Pravda. "The same politics and legislation are evidently endangering the opportunities of Slovakia to join the European Union."

Mr Johnson said some US aid programmes for Slovakia would continue despite its failure to be invited to join Nato. He said the value of US military assistance and co-operation with Slovakia had risen to $13m from $1m in 1994.

"However the enlargement of Nato turns out, we expect that this important aspect of the relations between the US and Slovakia will gain strength," he added. *Reuters, Bratislava*

■ HUMAN RIGHTS

Turkish policemen jailed

Two Turkish policemen were yesterday sentenced to five and a half years in jail for torturing a man who later fell to his death from a window of an Istanbul police station.

Anatolian news agency said the chairman of the Istanbul court concluded that the two policemen, Seydi Yapici and Recep Ucar, had used "cruel, inhuman and discreditable actions" after arresting Ali Riza Aydogan in February 1991.

The court said their behaviour amounted to torture and sentenced the policemen to five and a half years imprisonment. Another four policemen in the case had similar charges against them dismissed for lack of evidence, the agency said.

Anatolian said Aydogan had been arrested for looking suspicious and "committed suicide" by throwing himself out a third floor toilet window after being held for three days in the police station in Beyoglu district in central Istanbul. *Reuters, Istanbul*

■ NICHOLAS II

Tsar's bones to be moved

Boris Yeltsin, the Russian president, yesterday ordered the transfer of the bones of the country's last tsar, Nicholas II, from the Urals city of Yekaterinburg to Moscow for final identification, the Kremlin said.

A Kremlin statement said the remains of the royal family, executed in 1918, would return to Yekaterinburg after experts came to their conclusions. It said Mr Yeltsin would make a final decision on the time and venue of their burial in 1998. *Reuters, Moscow*

■ POLAND AND EU

Bishops visit Brussels

Nine Polish Roman Catholic bishops yesterday travelled to Brussels for a three-day visit to discuss the religious side of Poland's prospective integration in the European Union.

The nine bishops were due to meet the European parliament chairman and the European Union foreign relations commissioner. They were also scheduled to discuss issues such as agriculture and the media.

The church in the predominantly Catholic country has only recently come out openly in support of Poland's entry into the union.

EU negotiations with Poland, four other east European countries and Cyprus are to begin early next year. *AP, Warsaw*

Greece, Turkey to work together

By Kerin Hope in Agia Pelagia, Crete

Costas Simitis and Mesut Yilmaz, the Greek and Turkish prime ministers, have pledged to work for better relations, while making clear there will be no quick solution to disputes over the Imia islets and the Aegean continental shelf.

Mr Simitis and Mr Yilmaz underlined the need for regular contacts after meeting for the first time on the sidelines of a Balkan summit on Crete this week. Their talks followed incidents last month between Greek and Turkish military aircraft and a near-collision of two warships, which raised fears of a possible clash in the Aegean.

Mr Simitis, under attack yesterday from a hardline anti-Turkish faction in his governing Socialist party, said: "It is important for leaders of countries with problems to meet, to get their view across to each other. If we do not do this, Greece will be isolated and pushed into a corner."

Mr Yilmaz called for more high-level meetings and the revival of confidence-building measures agreed during a brief Greek-Turkish rapprochement in 1988 but never implemented. "It is of great importance that we meticulously refrain from tensions and action that might bring us to a conflict."

The talks effectively revived last July's US-brokered agreement in Madrid between Mr Simitis and President Suleyman Demirel of Turkey, in which the two sides agreed to renounce force in bilateral relations. They also improved the outlook for EU accession negotiations for Cyprus that start next April. But no progress was made on the long-running Aegean dispute, which Greece says must be referred to international arbitration. Mr Yilmaz repeated Turkey's demand for talks on all the Greek-Turkish disputes, including on the Aegean.

Both leaders appear unwilling to face the political costs of narrowing Greek-Turkish differences in the Aegean. While Mr Simitis is criticised by Socialist hardliners for softening government policy towards Turkey, Mr Yilmaz is reluctant to risk a clash with the influential Turkish military establishment. A further obstacle to Greek-Turkish co-operation emerged when Turkey rejected a Greek proposal to set up a permanent body in Athens to organise future Balkan meetings.

Greece has taken the lead in promoting relations between Balkan countries. The gathering on Crete also brought together Bulgaria, Romania and Albania to discuss economic co-operation and efforts against drug-smuggling and illegal immigration.

Turkey and the EU, Page 12

Costas Simitis, Greek prime minister, meets his Turkish counterpart, Mesut Yilmaz Reuters

Yugoslav dinar down by 10%

By Guy Dinmore in Belgrade

The Yugoslav dinar has plummeted on the open market this week following a sharp rise in the money supply that threatens to derail the Socialist government's economic stabilisation programme.

While the non-convertible dinar remains officially pegged at 3.3 to the German mark, illegal street traders yesterday were offering around 4.4 dinars, a fall of more than 10 per cent from last week and almost a third since August. More falls are expected.

Aleksandra Posarac, an economist and vice-president of the opposition Civic Alliance, said the government was pumping unbacked dinars into the economy to woo voters ahead of a fresh round of Serbian presidential elections next month.

Money in circulation last month was estimated at 10bn dinars ($1.69bn), almost double the amount six months ago. "It seems the government is really in trouble. They are running out of funds," Mrs Posarac said. "Elections are coming and they need money to pay off pensioners." The dinar has also been weakened by a sharp rise this week in petrol prices, from 3.7 dinars a litre to 4.9 dinars, after the government increased taxes on fuel to help fund its widening budget deficit.

Because of a lack of transparency, it is not clear how Yugoslavia is funding a balance of payments deficit forecast to reach $2bn this year. But diplomats said the government had so far managed to stave off total economic collapse, thanks to the hidden proceeds from smuggling, arms sales and dwindling reserves held in secret accounts abroad.

The ruling Socialist coalition of Slobodan Milosevic, the president, has suffered serious setbacks over the past two months, losing its majority in the Serbian parliament and nearly losing the presidency to Vojislav Seselj, the extreme nationalist leader of the Serbian Radical party. The presidential vote was invalidated by a turnout that fell short of the legally required 50 per cent, and a fresh election has been called for December 7.

With access to international financial institutions blocked by US sanctions, the main achievement of the Socialists has been to stabilise the economy through a tight monetary policy. But economists said inflation would return as the government resorted to printing dinars for short-term political gains.

Germany backs solar energy

By Peter Norman in Bonn

The Bonn government and the states of Bavaria and North Rhine-Westphalia yesterday announced a programme of public financial support aimed at turning Germany into a leading producer of solar cells.

Backing will be provided for two solar cell factories.

Pilkington Solar International of Cologne and Deutsche Shell will invest about DM30m ($17m) in a plant to produce cells with an annual electricity generating capacity of 25MW from 1999 at Gelsenkirchen in the Ruhr region of North Rhine-Westphalia.

Angewandte Solarenergie (ASE), part of the RWE group, will spend DM20m expanding annual production at its plant in Alzenau, Bavaria, from 1MW to 13MW of cells by 1999. It plans to increase output to 25MW later if demand allows.

Jürgen Rüttgers, the Bonn research and technology minister, said the federal government would support the projects with DM12m over the next three years. The North Rhine-Westphalia government will provide DM10m for the Gelsenkirchen plant, while Bavaria will support the initial expansion of the Alzenau plant with up to DM6m.

Mr Rüttgers said Germany's aim was to challenge the US and Japan, the two leading solar cell producers with sales last year of 39.85MW and 21.2MW respectively. The planned expansion would boost German solar cell production to about a third of current world demand.

Measured in terms of generating capacity, global demand is expected to jump 30 per cent to 120MW this year and continue growing by at least 15 per cent a year over the long term. German industry believes there could be a market for solar cells in thinly populated developing nations.

Solar energy has suffered in the past from being expensive. However, a joint statement from the Bonn, Munich and Düsseldorf governments said the plants in Gelsenkirchen and Alzenau would use highly integrated production methods that would push down costs.

Hungarian 'soap' tackles Nato

Anatol Lieven reports from Budapest on a TV campaign seeking to persuade the country to join the Atlantic military alliance

Colonel Lajos Korda of the Hungarian army is one of the most successful advocates of his country joining the Nato military alliance – despite the fact he does not exist.

Col Korda is a new character in Hungary's most popular soap opera, "Familia kft". He became one of the soap opera family's neighbours in the summer, after the Defence Ministry paid Ft 7m ($36,000) to have a pro-Nato character inserted into the series.

The colonel has spearheaded an unprecedented campaign to win the country's opinion round to Nato membership in advance of a referendum scheduled for November 16. Hungary is the only one of the three prospective Nato entrants holding a referendum on the issue; the other two, Poland and the Czech Republic, plan no such move.

An unsuccessful vote would call Nato's eastward expansion into question and deal a severe blow to the Hungarian government's prestige in the run-up to general elections due next May. But Col Korda seems to have made his mark: opponents of Nato membership, in the majority earlier this year, have seen their numbers dwindle.

According to opinion polls, from only 47 per cent in March, those saying Yes to membership now number more than 70 per cent of the population. About 20 per cent remain opposed.

The referendum was promised by the ruling Socialists before they took power in 1994, by way of appealing to neutralist sentiment. Now they are stuck with the vote, despite the fact that meanwhile, they have themselves become strong advocates of membership.

An unsuccessful vote would call Nato expansion into question

The government has allotted Ft 112m to the propaganda campaign, which has included a 12-part television documentary series on Nato, "support for journalists and the media in describing Nato", and a highly sophisticated CD-Rom, "Natopoly", for use in schools and libraries. This consists of a game in which the players answer questions about Nato. If they get it right, the image of one or other leading politician appears on the screen, declaring they should be in parliament.

Apart from the publicity campaigns, government has also reduced opposition by postponing a controversial decision on buying new fighter aircraft from the west at a cost of up to $1.5bn.

Many Hungarians thought that western arms companies were trying to use Hungary's desire to join Nato as a means of pressing the Hungarian government to buy their aircraft.

But assuaging anti-Nato sentiment is not enough. The real danger, officials say privately, is of a low turnout. If less than 50 per cent of the population go to vote on November 16, the government fears it will send a negative message to the western parliaments which have to vote on Nato expansion – most notably the US Senate.

An informal poll on the streets of Budapest this week saw a large proportion of those questioned replying they had not yet decided whether to vote. "It will depend on the weather," was a common response.

But despite popular indifference, the country's political establishment has piled up behind joining Nato. All the parliamentary opposition parties support membership.

Opponents are only to be found on the political fringes. The foes of membership include the pacifist Alba Circle, the Workers' party, the descendant of the hardline communists, and the ultra-nationalist Justice and Life party.

All these groups have complained about the way taxpayers' money has been spent on the pro-Nato campaign. The Alba Circle complained to ORTT, the television regulatory authority, about Col Korda's proselytising appearance on "Familia kft".

ORTT subsequently ordered Hungarian state television to signal clearly that the character had been specially inserted.

One official said that when it came to disseminating the government's pro-Nato views, soap operas left other media forms behind. "This way we can reach millions of people, week after week," he added. "Writing articles just does not compare."

Tibor Csaszar, responsible for the Nato campaign in the foreign ministry, is also unrepentant.

"In a democracy, parliament represents the people. If the government and all the main political parties support the Euro-Atlantic integration process, then we simply do not have the right to give a major voice to the opposition."

NEWS: INTERNATIONAL

Iraq urged to delay expulsions

By Michael Littlejohns in New York

Kofi Annan, UN secretary general, yesterday appealed to Iraq to relax today's deadline for the expulsion of American arms inspectors.

A UN spokesman said Tariq Aziz, Iraq's deputy prime minister, agreed to consider the plea. He was due to receive later today in Baghdad a three-man diplomatic mission appointed by Mr Annan to discuss the impasse over inspections.

However, hopes for success were not encouraged by Iraq's renewed refusal to allow American investigators to enter a weapons site yesterday. Other inspections were immediately called off because the UN will not allow Iraq to choose the nationalities of inspection teams.

Seven American inspectors were last week ordered to leave by 1am local time on Thursday (10pm GMT tonight).

US diplomats said the expulsion order was unacceptable and they did not, therefore, acknowledge there was a deadline.

Security Council members were outraged by the latest move to block inspections, which Sir John Weston, UK delegate, termed "curiously disrespectful" and an insult to Mr Annan while his emissaries were on their way to Baghdad.

A report on the incident was delivered to the Council by Richard Butler, Australian head of the commission charged with eliminating Iraq's deadliest arsenals, but no immediate formal action was expected.

In a separate move yesterday, France and Russia issued a joint statement urging Iraq to stop defying the UN. The Russian involvement appears calculated to signal to Baghdad that it may not count on any division within the Security Council.

Short of a more serious development such as an Iraqi attack on a U-2 surveillance aircraft, which had been threatened, the Council seems likely to mark time at least until the mission reports back, probably next Monday.

In the meantime, Mr Annan hopes that President Saddam Hussein himself will agree to see the envoys who are from Algeria, Argentina and Sweden.

Fred Eckhard, the UN spokesman, confirmed that U-2 flight operations would continue regardless of the Iraqi threat. Military experts believe Iraq has little chance of shooting down a U-2.

Islamic boycott undermines Jordan's election

By Rageh Omaar in Amman

Jordanians voted yesterday in the first parliamentary election since the signing of a peace agreement with Israel in 1994 to elect a lower house that will be dominated by pro-government independent candidates. The predictable outcome is due to a boycott by the Islamic Action Front (IAF), the largest opposition party.

The absence of the IAF along with eight other leftwing and pan-Arabist opposition parties is in protest against the 1993 Electoral Law which in effect limits the number of seats the Islamists could hope to win by giving a greater proportion of seats to rural areas, rather than pro-IAF urban districts.

The election could mark a turning point for Jordan's relationship with Islamic groups. For decades Jordan has been almost unique in the region in co-opting the powerful Moslem Brotherhood and other Islamic organisations into the political process, with the active encouragement of King Hussein. The decision of the IAF and the Moslem Brotherhood to boycott the poll has changed that relationship and revealed the increasingly Palestinian nature of the Islamist movement in Jordan.

Many of the IAF's 16 MPs in the previous parliament were elected from predominantly Palestinian urban areas. If, as analysts predict, the election produces a low turnout in these areas but a higher turnout in rural and Bedouin districts it will reinforce political differences not only between rural and urban areas, but also between predominantly Palestinian and East Bank Jordanian areas.

The boycott has had a dramatic effect. More than 95 per cent of the 524 candidates contesting the 80 seats in the lower house are standing as independents, most of them representing purely tribal and regional interests. This produced a lacklustre campaign with little debate of national issues such as the future of the peace treaty with Israel, which faces considerable public hostility, or economic and trade issues including whether Jordan should continue with the International Monetary Fund's austerity measures after the current programme ends next year. Several hundred election posters by candidates in Amman which called for an end to normalisation with "the Zionist entity" were torn down and confiscated by the authorities.

Nasir Rashid, the interior minister said: "All indications are reassuring and encouraging. We expect a good turnout." But there have been widespread allegations by opposition groups of vote-rigging. In the week before the poll government officials admitted they had found 120,000 duplicated names, the equivalent of 10 per cent of the electorate, on voting lists in several districts and 11 candidates were being prosecuted. Mazen Armouti, government spokesman, said the irregularity was common in some rural areas.

Against a darkening sky: Israeli and Palestinian negotiators began formal talks in the US yesterday despite the absence of most of the Palestinian team. Delegations led by David Levy, Israeli foreign minister; Mahmoud Abbas, senior PLO member, and Dennis Ross, US special co-ordinator, met at a State Department training centre in Arlington. Meanwhile, construction work went on yesterday on the disputed Jewish settlement of Har Homa in east Jerusalem. A "time-out" on building new settlements is one of the most keenly held Palestinian demands Reuters

Court blow to Sharon

By Judy Dempsey in Jerusalem

Ariel Sharon, Israel's infrastructure minister, yesterday lost a libel suit after a court ruled he had failed to inform Menachem Begin, former Likud prime minister, about his intentions to send Israeli troops as far as Beirut in 1982.

The court decision was made six years after Mr Sharon began a libel suit against Uzi Benziman, a journalist at Ha'Aretz, a leftwing daily newspaper. Mr Benziman stated that Mr Sharon, defence minister when Israel invaded Lebanon, misled Mr Begin about how far Israeli troops would advance.

At a news conference last night, Mr Sharon insisted the government made the decisions "every part of the way", adding the advance on Beirut was "a direct order from Begin to the chief of staff". Mr Begin died in 1992 after withdrawing from public life in 1983 as casualties increased in Lebanon.

Mr Sharon said he would continue in office. His lawyer would lodge an appeal against the court decision.

Mr Netanyahu said he would stand by his minister.

Mr Sharon was forced to resign as defence minister soon after the deaths of hundreds of Palestinians in refugee camps close to Beirut in 1982.

Algerian MPs' demonstration is broken up

By Roula Khalaf in London

Algeria's army-backed government yesterday broke up a demonstration by opposition members of parliament protesting against alleged electoral fraud. But opposition parties vowed to step up their confrontation with the regime by calling for more protests throughout the country and a general strike.

Dozens of MPs, representing six opposition parties, tried to march in central Algiers, but found themselves encircled by police. The protest came a day after anti-riot police clashed with student demonstrators and broke up a sit-in by the Rally for Culture and Democracy (RCD), a secular opposition party.

The National Democratic Rally (RND), a new government party, won more than 50 per cent of local and provincial council seats in the elections, according to official results.

Opposition parties called on supporters to demonstrate tomorrow in several Algerian cities, including Oran, Setif and Annaba.

"We are raising the stakes but in pacifist manner," said a spokesman for the Movement for a Peaceful Society.

The government appears determined to stop the protests. After allowing two mass demonstrations in Algiers last week, it has warned parties to halt the demonstrations, reminding them that public gatherings required prior approval.

Meanwhile, President Liamine Zeroual said the parties' complaints would be dealt with through legal channels. More than 1,000 complaints have been lodged. But parties like the RCD said the fraud was so persuasive that they saw no point in filing complaints.

"They are cracking down because they bet that our protests won't last and that the opposition will fragment," said Khalida Messaoudi, a leader of the RCD. "But what they face is unity among parties on the question of electoral fraud."

The protesters include most of the legal opposition: the Movement for a Peaceful Society and Ennahda, two Islamist movements; and the Socialist Forces Front and the Rally for Culture and Democracy, two secular, largely Berber-based parties. The Islamic Salvation Front, the now banned party which was stripped of an electoral victory in 1992, plunging the country into nearly six years of bloodshed, had called for a boycott of the local elections.

Murdoch tax inquiry to conclude soon

By Avi Machlis in Jerusalem

Israeli tax authorities said yesterday an investigation into suspected tax evasion by News Datacom Research (NDR), a Jerusalem-based subsidiary of Rupert Murdoch's News Corporation group, was likely to be concluded next month.

Tax officials launched a public investigation in October 1996 into suspicions that NDR had concealed up to \$150m (£90m) in income since 1989. The authorities say the investigation is the biggest and most complex in Israel's history, encompassing 400,000 documents and the interrogation of dozens of witnesses.

Officials yesterday declined to say whether indictments would be served against company officials. A company source said NDR, renamed News Digital Systems earlier this year, had co-operated with the inquiry. "The company is confident the storm has largely passed, and does not expect any negative conclusions from the investigation," he said.

The Israeli inquiry followed a Financial Times investigation published in May 1996 into the tax structure operated at NDR, a subsidiary of News Datacom, a UK-based company which is part of News Corporation. The company is involved in the supply of "smart-cards" to subscribers of BSkyB, the satellite broadcaster 40 per cent owned by News group. Smart cards ensure that only paying subscribers receive transmissions.

Internal documents seen by the FT showed how the company organised its accounts and structure between 1988 and 1992 to minimise tax payable in Israel and the UK.

The state of Israel yesterday asked a Jerusalem court to defer a hearing on personal charges against Leo Kreiger, chief financial officer of NDR at the time, since they could not provide him with relevant documents being used in the inquiry.

NEWS: WORLD TRADE

Travel agents accuse Star airline alliance

By Arkady Ostrovsky and Michael Skapinker

Three of the world's biggest buyers of corporate air travel have accused the Star Alliance, led by Lufthansa of Germany and United Airlines of the US, of failing to deliver price benefits to passengers.

The criticism by American Express, Hogg Robinson Business Travel International and Carlson-Wagonlit comes after Karel Van Miert, the European Union competition commissioner, said last week that he had stepped up his investigation of the Star Alliance and that he could impose strict conditions on its operations.

The EU investigation is part of a wider inquiry into airline alliances, prompted by the planned link-up between British Airways and American Airlines. While the BA-American alliance cannot begin operating until it is cleared by regulators in Brussels and Washington, the Star Alliance - which also includes Scandinavian Airlines System, Thai Airways, Air Canada and Varig of Brazil - was formally launched this year.

Mr Van Miert said he could not stop the Star Alliance from operating because the US authorities had already allowed it to go ahead. However, he said he would take action against the alliance if it was anti-competitive. Mr Van Miert has already demanded that BA and American give up 350 weekly take-off and landing slots at London's Heathrow airport. He could insist the Star Alliance gives up slots too.

When the alliance was formed earlier this year, its members said it would lead to lower fares. BA and American have also said their alliance would result in lower fares. But consumer groups have expressed unease about airline alliances, which sell seats on each other's flights and offer joint frequent flyer programmes. The consumer groups say the alliances could push up fares.

The travel agents, which purchase tickets for large companies, say these fears are well-founded. Mike Platt, director of commercial affairs at Hogg Robinson, said: "At present we see no price advantages for customers flying Star Alliance."

This view was supported by American Express and Carlson-Wagonlit, the US-French travel group, which said that although the Star Alliance offered benefits such as joint frequent flyer programmes, it was not price competitive. "Price benefits are crucial because corporate clients are increasingly looking not only for quality, but also for ways of controlling their travel budgets," said Brian Cronk, commercial director at Carlson-Wagonlit.

Lufthansa said the alliance's fares reflected market conditions. Graham Atkinson, United vice president, said the Star Alliance's worldwide network was attractive to customers. He said: "It's over-simplistic to say 'are prices today lower than yesterday?'"

● Business air fares for internal US flights have risen 20 per cent in the last 12 months, according to a survey by American Express, writes John Authers in New York. The company's Business Airfare Index suggested that the repeated lapse and reinstatement of a federal tax, introduced in January last year, along with continued growth in the number of passengers, had allowed airlines to raise fares by 34 per cent since February last year.

American Express also found evidence that companies were becoming more aggressive in managing their air travel budgets, with the average fare paid rising only 10 per cent over the last 12 months, half the rate of increase in overall fares charged.

R-R wins $450m engines order

By Michael Skapinker, Aerospace Correspondent

Air Canada has chosen Rolls-Royce engines to power its twin jet Airbus A330-300s. The order is worth up to \$450m to the UK manufacturer.

Air Canada announced in August that it was buying nine A330-300s and taking options on a further 10, but left the choice of engines open. Delivery of the aircraft, which will be equipped with Rolls-Royce Trent 772 engines, will begin in October 1999 and continue until 2001. The airlines will fly from Toronto, Montreal, Calgary and Vancouver to Europe.

Air Canada said it had chosen the Rolls-Royce engines because of their "excellent performance, low fuel burn, low noise and emissions, and ease of maintenance".

The Canadian carrier is the ninth airline to order the Trent engine for its A330s. Other customers include Cathay Pacific, Garuda Indonesia, Emirates and the Los Angeles-based International Lease Finance Corporation.

Air Canada also said during the summer that it would be one of the launch customers for a new generation of four-engined Airbus A340 aircraft. These will also be powered by Rolls-Royce Trent engines as the UK company is the only manufacturer providing power for these aircraft. Rolls-Royce's two large US competitors, General Electric and Pratt & Whitney, failed to reach agreement with Airbus on supplying engines for the aircraft.

The A340-500 will be a long-haul 313-seat aircraft, capable of flying from Toronto to Hong Kong non-stop. The A340-600 will be an extended version of the standard A340. With seating for 378 passengers, it aims to compete with the Boeing 777 and smaller version of the Boeing 747.

Seoul traders check out Havana

By Pascal Fletcher in Havana

Colourful banners hanging outside one of the enclosures at an international trade fair in Cuba this week identified the "Korea Pavilion".

The first thought of most casual observers was that communist-ruled North Korea, a longstanding socialist ally of Cuba, had sent a big delegation to the Havana fair, despite its economic woes.

But closer inspection showed that all the 26 companies in the "Korea" pavilion came from South Korea, which has no formal diplomatic ties with Havana and is a close ally of the US, Cuba's arch-enemy.

The South Korean businessmen who had travelled to Havana seemed happy to disregard the political alliances and determined to check out Cuba's potential as a new market.

"Business is business and politics is politics," said Sung Yeon Won, export general manager of the Seoul-based Global & Yuasa Battery. Other companies were selling everything from farm vehicles to kitchen utensils and pencils.

"For most Korean companies, Cuba is unknown," said Mr Won. The South Korean delegation included officials from the government Korea Trade-Investment Promotion Agency (Kotra). Kotra director general Min Kyun said business prospects were limited by the lack of diplomatic ties between Seoul and Havana and the size of the state-dominated Cuban market. "If the situation changes, we can come more aggressively to the Cuban market," Mr Kyun said.

Some exhibitors said they would like to see the lifting of the US economic embargo against Cuba before they could seriously consider doing significant business. "I can wait 10 years," said Joon Sang Ji, chairman of the JIS Group, which sells construction equipment.

White House gets ball rolling for fast-track

By Nancy Dunne in Washington

President Bill Clinton's administration is hoping to build enough support in Congress this week to deliver a vital weapon in his trade and foreign policy - so-called fast-track negotiating authority.

A crucial week began with an elaborate press conference, staged by Tom Daschle, the Senate Democratic leader, who said he would vote for the measure. If passed it would give Mr Clinton the authority to negotiate trade agreements which Congress can then either approve or reject without amendment.

Although there had never been any doubt that Mr Daschle would come aboard in the end, he praised the administration for producing "an unprecedented document" of its broader strategy for trade negotiations - a series of presidential executive orders designed to address concerns of environmentalists and the workers' rights lobby.

The performance drew no endorsements from environmental and labour groups which have formed a powerful opposition along with protectionist business, farm groups and isolationist, anti-trade Republicans such as Pat Buchanan, a former presidential candidate.

However, it may provide political cover for congressmen and it gives the impression that the administration has the legislative momentum that would make it possible for many Democrats to vote for the measure.

A vote in the Senate yesterday was expected to head off a procedural delay so the legislation can come to the floor today or on Thursday. Although the bill is given a fair chance in the Senate, the outcome in the House may not be clear until the votes are counted on Friday.

To sustain the perception that support is building up for the administration's case, the powerful Business Roundtable has called in the services of its 100 chief executives of big US companies.

More than 30 will arrive today, leaving their jets parked at National Airport while they fan out across Capitol Hill.

"This is when all the momentum builds," said Virginia Hume of America Leads on Trade, the business lobby's ad hoc coalition. Members, she said, were "flipping like crazy" - coming out in favour of fast-track - now that they know there will be floor votes.

Environmentalists have seen this all before. In 1993, the lobby split with several groups agreeing to support the North American Free Trade Agreement after the administration negotiated what was acknowledged to be weak so-called side agreements. Lax implementation of those agreements left environmentalists unmoved when the president issued more promises to make the environment an issue in trade policy. They want a commitment to sustainable development spelled out in the fast-track law - a move Republicans have blocked.

"We understand we can't tell other countries what standards they should have, but those on the books, should be enforced," said Mr Bill Snape of Defenders of Wildlife. The current language on environment in the fast-track bills had "nothing to do with the broader vision of trade and environment", he said.

Furthermore, environmentalists want a reversal of current trade law, which makes it a barrier for any country to try to regulate how its imports are produced - whether with child labour or fishing nets that kill dolphin.

"Exports equal excrement," say environmentalists opposed to fast-track. Pollution curbs affect farmers like Elmer Wade, of North Carolina, pictured checking his pigs. AP

Administration officials insist that the current fast-track plans - they differ in the House and Senate - both allow the negotiation of environmental agreements. Kathleen Rogers of the Audubon Society, which backed Nafta, disagrees: "There is nothing in the bill which supports strong implementation of environmental laws."

Whether intentional coincidental with the administration's push for fast-track or not, a promised clean-up at the US-Mexican border, has begun. The Environmental Protection Agency has budgeted \$170m for projects and the Nadbank - set up to finance labour and environmental schemes - has begun to announce loans.

But increased trade has created environmental damage that has not been addressed. In North Carolina, the pig has become a symbol of resistance to fast-track. US swine exports have grown more than 50 per cent since Nafta was passed.

According to Molly Diggins of the Sierra Club in North Carolina, the state's soaring hog population has polluted once-pristine streams. "Exports equal excrement," she wrote in a letter to her congressman, who has yet to decide how to vote. Furthermore, "corporate hog bosses, fattened by export profits" have hired "droves of high-priced lobbyists" to block the environmental safeguards needed when trade explodes.

The lobbyists have had a tough time against the opposition of the Molly Digginses of the country. But the administration is bringing out the big guns this week. All cabinet members have been detailed to explain how fast-track is in the national interest, that the country's foreign policy is at stake, and, worst of all, failure to pass the bill could cause another tumble on the stock market.

هكذا من الأصل

election

ian MPs' nstration ken up

ns Seoul traders check on Havana

NEWS: ASIA-PACIFIC

Bank's purchase a boost for HK property

By John Ridding in Hong Kong

Standard Chartered, the international banking group, yesterday gave a vote of confidence in Hong Kong's economy and property market by announcing it would pay HK$1.3bn (US$168m) for new offices in the territory.

"This is a clear billion dollar commitment to the growth and development of our business," said David Brougham, executive director. "It is an expression of our faith in this city."

Hong Kong has been shaken over the past few weeks by a sharp fall on the stockmarket and assaults on its currency. A rise in interest rates to defend the Hong Kong dollar peg to the US dollar has raised fears that the property and banking sectors, the twin pillars of the economy, will be hit.

Property analysts cautioned against reading too much into a single deal, but they said the announcement and the price of HK$4,350 per square foot was positive for the market. "It is slightly higher than we would have expected," said Michael Leary, head of property research at Lehman Brothers.

The site purchased by Standard Chartered is at Millennium City in Kwun Tong, a former industrial zone east of the Kowloon peninsula.

Most property analysts predict a fall in office and residential prices of between 15 and 30 per cent following the recent rise in interest rates. Prime rates were increased from 8.75 per cent to 9.5 per cent last month, following a protracted increase in money market interest rates during financial markets upheaval.

Hong Kong's financial authorities predict interest rates will soon fall to normal levels, but the Bank of East Asia yesterday moved to raise its mortgage rate. That prompted predictions that some smaller banks might follow suit to offset the impact of increased funding costs.

Under the terms of yesterday's deal, Standard Chartered is buying 15 floors of a new tower block with an option to lease or buy a further five floors. The lease option rent is set at HK$20 a square foot, about one-third the rate for prime office space in the central area, according to Mr Leary.

Suharto relatives test resolve to close banks

By Sander Thoenes in Jakarta

Powerful friends and relatives of President Suharto yesterday tested the government's commitment to reforming the economy by stepping up protests against closure of their banks.

A son, a daughter and a half-brother of Mr Suharto, along with several of his most prominent business associates, protested against a decision of the finance ministry to revoke licences for three of their banks over the weekend, along with 13 other small and troubled banks.

The closures were a first step towards fulfilling an agreement with the International Monetary Fund and other lenders who pledged more than $37bn last week to help Indonesia fend off attacks on its currency.

Bank Jakarta, owned in part by Probosutedjo, Mr Suharto's half-brother, yesterday started paying out dozens of customers up to Rp5m ($1,400) each. "We will pay the depositors in cash with our [main shareholders'] own money," Mr Probosutedjo said, ignoring the government's decision Saturday to pull the licence of his bank and ban its owners from selling or withdrawing assets.

Mr Suharto has in the past protected his family's business interests from deregulation efforts but this time round he has spared few. Reduced support for a national car programme, cuts in import tariffs and delays in infrastructure projects have all hit the businesses of his relatives and close associates.

Bambang Trihadmodjo, Mr Suharto's son, has threatened to take the finance ministry to court for closing down Bank Andromeda, in which he holds a 25 per cent stake. He conceded that the bank had exceeded limits on lending to shareholders but said 90 per cent of Indonesian banks ignored that restriction.

Andromeda lent $75m to Mr Bambang and two other powerful shareholders, who used it to inject capital into the Chandra Asri petrochemical plant, in which they and other associates own 75 per cent. Chandra Asri used the capital to pay off $650m of its $1.37bn debt just days before the government reduced import tariffs on petrochemicals, which had been designed to protect the factory from foreign competition.

Dennis de Trey, country director of the World Bank, expressed faith in the will and ability of government officials to close down the 16 banks regardless of their powerful patrons. "They must have known what was going to happen," he said. "They took a very brave stance."

The government also banned owners of closed banks from leaving the country, but newspaper said that the owner of two of the largest banks had already left the country.

Japanese car sales suffer sharp reversal

By Paul Abrahams in Tokyo

The continuing fragility of Japanese consumer confidence was underlined yesterday when it was announced that car registrations tumbled 13 per cent in October, the largest drop in a single month this year and the seventh consecutive month of year-on-year falls.

"Registrations are in free fall," said Peter Boardman, automotive analyst at UBS in Tokyo. "People are simply just not buying."

Analysts said the latest data were especially disappointing because of a rash of new product launches and the Tokyo motor show last month, which should have encouraged sales. The sector accounts for about 20 per cent of all Japanese manufacturing and is the largest single segment.

Car registrations dropped 14 per cent to 276,747, data from the Japan Automobile Dealers' Association showed. Demand from the commercial sector was markedly weak, with sales of commercial heavy trucks down 21 per cent. Imports of vehicles of all types fell 25 per cent to 25,024.

The big five manufacturers all reported lower sales. Toyota's dropped 13 per cent to 169,964; Nissan's 4.1 per cent to 71,600; Honda's 3.1 per cent to 48,704 and Mazda's 13.8 per cent to 21,015.

Mitsubishi Motors' sales were down 31 per cent. Analysts said that the company's staff appeared to have been preoccupied by a racketeering scandal which last month led to the resignation of the chairman and president of Mitsubishi Motors.

Among the big five, only Mitsubishi's share price fell, down Y16 at Y512. Analysts said registration data were available on a daily basis and most of the bad news was already reflected in the market.

Poor demand meant Japanese automotive production was likely to undershoot last year's figure of 5.375m, Mr Boardman added. This would be the first fall in four years.

So far, production had been underpinned by buoyant exports. In the six months to September, these had risen 43.5 per cent to Europe, 24.7 per cent to North America and 10.8 per cent to Asia.

But export growth would decelerate because Asian and US sales appeared to be slowing. Toyota was predicting its production would fall 13 per cent this month, 4.2 per cent in December and 6.4 per cent in January.

The lack of consumer confidence in Japan appeared to be contradicted by data showing household spending increased 2.6 per cent year-on-year in September. But Mineko Sasaki-Smith, senior economist at Crédit Suisse First Boston, said the stronger than expected figures were deceptive because household spending had plunged in September 1996, making year-on-year comparisons flattering.

● The Organisation for Economic Co-operation and Development expects to make a "noticeable but not massive" downward revision in its growth forecast for Japan, an OECD official said yesterday, Reuters reports from Paris.

The Paris-based group of 29 rich countries was set to cut its growth forecast for Japan both as a result of the impact of Asia's financial turmoil and poor domestic economic indicators. In June, the OECD said it was expecting Japan's gross domestic product to grow 2.3 per cent in 1997 and 2.9 per cent in 1998.

Jenny Shipley, centre, walks to a party meeting in Wellington yesterday Reuters

'Perfumed steamroller' faces tough task in NZ

By Terry Hall in Wellington

Jenny Shipley, who is due to become New Zealand's first woman prime minister, faces a formidable task as she seeks to boost the popularity of the governing National party.

Her first goal will be to reach accommodation with National's junior coalition partner, the New Zealand First party. Winston Peters, NZ First's leader and deputy premier to Jim Bolger, who is stepping down as prime minister, appears deeply upset at the coup she mounted to unseat Mr Bolger.

Both governing coalition parties have seen steep falls in public support since last year's election. One recent poll gave Labour, the main opposition party, around 50 per cent support. The opposition is led by Helen Clark, the former deputy prime minister in the last Labour government; New Zealand now has women leading both its main parties.

Mrs Shipley and her backers gave Mr Peters no warning they were planning the coup against Mr Bolger, his main ally in parliament. She has made it clear National must assert itself over NZ First, or risk being pulled down in the wake of NZ's unpopularity. Many National MPs blame NZ First for allowing the disapproval rating for the coalition to reach 90 per cent.

Mrs Shipley said yesterday she would honour the coalition agreement with NZ First, following initial reports she would seek to renegotiate it. Her dealings with NZ First are unlikely to be easy, as she has a sometimes acrimonious relationship with Mr Peters, who said yesterday he would not let his party be "captive of a rightwing agenda".

Mrs Shipley will also have to allay unease at the way she mounted the coup. The move was planned while Mr Bolger was overseas at the Commonwealth Heads of Government Meeting in Scotland and while making a state visit to France.

She told Mr Bolger minutes after his return she had the numbers to unseat him. Mr Bolger announced some hours later he was stepping down after seven years as prime minister and 11 years leading the National party, "for the good of both the party and the country".

Mrs Shipley – nicknamed the "perfumed steamroller" by her enemies – will also have to work hard to win acceptance from an electorate deeply suspicious of rightwing politicians who have brought great change.

Six years ago, Mrs Shipley was burned in effigy for the enthusiasm with which she introduced a series of benefit cuts as social welfare minister. Later, as health minister, she was in charge of hospital spending cuts, roles that made her New Zealand's most unpopular politician.

In her role as transport minister, she has won friends in National by calling for a series of economic reforms, including a further bout of privatisation, which she said was needed to "rebuild and refocus" the party. This saw her personal support in opinion polls rise from nil to 12 per cent, against 15 per cent backing for Mr Bolger.

Mrs Shipley, 45, a former primary schoolteacher, shows unwavering self-confidence and has never backed away from unpopular causes. She was a colleague of Ruth Richardson, former finance minister, who implemented many of the country's most controversial economic and social reforms.

Professor Barry Gustafson, a historian of the National party, said her party would lose more votes from the centre if she tried to take it further to the right.

NEWS DIGEST

Bangkok backs telecom sell-off

The Thai cabinet yesterday approved a long-delayed telecommunications master plan that paves the way for gradual privatisation and liberalisation of the country's telecommunications sector.

Under the plan, which could be altered by the country's powerful telecommunications conglomerates or a new government, a telecommunication committee will be set up to regulate the industry. Currently the state-owned Telephone Organisation of Thailand (TOT) and the Communication Authority of Thailand (CAT) serve as monopoly operators and de facto regulators.

The Thai government also plans to set up a telecom holding company to take control of TOT and CAT from the ministries of finance and communications. This holding company will then sell off the organisations separately, while retaining CAT's mail service fully in state hands.

The process is likely to begin next year, officials said, and could last until the Thai telecoms market was fully liberalised in 2006. *Ted Bardacke, Bangkok*

■ S KOREAN ELECTION

Candidate launches new party

Rhee In-je, a young former provincial governor, yesterday formally launched an independent bid in South Korea's December presidential election which polls suggest he might win. The inauguration of Mr Rhee's New Party by the People came amid increasing indications that his candidacy is being secretly supported by Kim Young-sam, the South Korean president, who is openly feuding with the government candidate.

Although Kim Dae-jung, the veteran leader of the centre-left opposition, remains front-runner in the December 18 election, Mr Rhee has been closing the gap in recent days, according to opinion polls.

Mr Rhee defected from the ruling party in September after losing its presidential nomination to Lee Hoi-chang, who was once favoured to win the election.

But allegations that Mr Lee's sons dodged compulsory military service hit his support. *John Burton, Seoul*

■ BANGLADESH AID

Strike greets Paris Club team

A thousand policemen were brought in to protect delegates at the annual meeting of the Paris Club of western donors in Dhaka yesterday, gathering to examine Bangladesh's request for $2.17bn in aid for next year.

Against the back-drop of a half-day general strike called by the opposition Bangladesh Nationalist party, donors criticised the government and the opposition whose actions they said were threatening economic reforms.

"The present confrontation between the government and the opposition appears to be ushering in a new cycle of violence, intimidation and instability," said a leaked statement signed by the heads of delegation from 15 countries.

Bangladesh obtained aid commitments of $1.91bn last year. Shah Kibria, the finance minister, argued for increased donor commitment. *Kasra Naji, Dhaka*

Gases talks underline EU-US gap

By Bruce Clark in Washington

A huge gap between European Union and US attitudes to the issue of climate change was underlined yesterday when senior EU officials put to their US counterparts the argument for tough action to limit greenhouse emissions.

With less than a month before an international conference on global warming in Kyoto, Japan, there was little sign of any break in the deadlock over how much the developing countries should be required to do.

Senior US legislators have warned this week that, even in the event of the Kyoto talks yielding agreement on a climate change convention, it would barely gain 15 of the 67 votes needed for ratification in the US Senate.

Even if the US administration initials a treaty and pledges not to send it for ratification unless developing countries join the effort, the lobby groups opposed to any curbs on carbon emissions would cause "an almighty row" on Capitol Hill, according to one congressional staffer.

The US proposal for industrial countries to stabilise their heat-trapping emissions at their 1990 levels between 2008 and 2012 was dismissed by representatives of Britain, the Netherlands, Luxembourg and the European Commission as far too weak to inspire the developing nations to follow suit.

"The US position will not in our view get the developing countries on board," said Michael Meacher, the UK environment minister. He added that Washington could not expect to win approval for its demands for flexibility and "joint implementation" of agreed curbs – through an international emissions trading system – unless it accepted more ambitious targets.

The EU, in a position dismissed by almost all politicians in Washington as unrealistic, favours reducing emissions in 2010 to a level 15 per cent below that of 1990.

But the widest gap, evident at a conference in Bonn last month and showing no sign of narrowing, was over the terms in which the developing countries – whose emissions are not part of the formal Kyoto agenda – should be required to help combat global warming.

The US administration has called for developing nations to agree by 2005 to limits on their carbon emissions. But this has been rejected as unrealistic by industrial nations in Europe, and denounced by the developing states themselves.

US opponents of early action, meanwhile, are warning that, even if the developing world accepted that timetable, it would not make the imposition of limits on US industry any more acceptable to them.

One of the few US interest groups which has wholeheartedly welcomed rising international concern over climate change is the nuclear industry, which has been publicising the virtual absence of dangerous air pollution from its variety of power generation.

The nuclear industry is showing rising self-confidence after a run of public-policy successes: an agreement last week to sell US nuclear technology to China, and a vote in the House of Representatives, similar to one passed earlier in the Senate, that would oblige the administration to build a store for nuclear waste.

Brazil to push through fresh budget cuts

By Geoff Dyer in São Paulo

The Brazilian government is preparing new cuts in next year's budget in an attempt to repair the damage to the credibility of its economic policy caused by the turmoil in world financial markets.

Fernando Henrique Cardoso, Brazil's president, met yesterday with congressional leaders to urge them to accelerate the passage of crucial constitutional reforms aimed at reducing the fiscal deficit.

"We have to take, as everyone knows, tough but necessary decisions to secure the value of and confidence in the Real," said Mr Cardoso. "History does not pardon those who hesitate in these moments."

The renewed impetus on the fiscal front came as Brazilian financial markets experienced another nervous day, following the fall in Hong Kong. Shares on the São Paulo stock exchange's Bovepsa index of leading companies initially fell, but by mid-afternoon had risen 2.95 per cent to 10,149 points.

Brazilian shares dropped 22.1 per cent last week after the upheaval in world financial markets led to increased fears that Brazil, which has an overvalued currency and large fiscal and current account deficits, would be forced into a devaluation.

The government doubled interest rates on Thursday in order to defend the currency, which helped bring stability to the foreign exchange market but which will aggravate Brazil's fiscal problem by increasing interest costs.

Ministers refused to give details of the budget cuts or indicate when they might be finalised. Economists estimated the government would try to trim the 1998 budget by up to $2bn, by reducing investment or by closing state-owned enterprises.

In the first breaking of ranks among the government-aligned political parties, Paulo Maluf, leader of the rightwing Brazilian Progressive Party (PPB), described the rise in interest rates as "pornographic and unacceptable".

● There was some good economic news yesterday when it was announced that the trade deficit for October was $829m, down from $1.23bn the previous month. The result, which was below forecasts, compares with a deficit of $1.31bn in the same month in 1996, making it the first time this year that the monthly trade deficit has been lower than the same period last year.

The figures showed that imports in October were 2.2 per cent lower than in September, suggesting consumer demand for imported products has slowed. The sharp fall in Brazilian share prices over the past two weeks has in part been prompted by the rise this year in Brazil's trade deficit.

Canada buckles on greenhouse targets

Proposal is seen as face-saver by the prime minister, writes Scott Morrison

Canada is expected to arrive at a global environmental conference next month proposing to extend a previously agreed year-2000 deadline for stabilising emissions of greenhouse gases at 1990 levels, but calling for reduction targets beyond 2012.

The Canadian government, which at the 1992 Earth Summit in Rio de Janeiro established itself as a leader in the fight against global warming, appears to have buckled to pressure from industry leaders and western interests to adopt less ambitious short-term targets.

The proposal is seen as a face-saving stance for Jean Chrétien, the prime minister, who has vowed to assume a tougher stance on the issue than the US, which has also urged an extension of the 2000 deadline.

Environmentalists, however, are outraged Canada has failed to take a stance that restores the country's once enviable environmental reputation, which has been damaged by reports it has failed to live up to a 1992 treaty to curb emissions.

Critics say Mr Chrétien's stance is a weaker proposal than the US position because Canada has not announced an action plan to achieve those reduction targets.

It appears less likely Canada will play a pivotal role at negotiations next month in Kyoto, Japan, where the European Union will push for a 15 per cent cut from 1990 levels by 2010.

Some Canadian officials suggest they might help broker an agreement in Japan, much as at the Rio summit, but environmentalists say Canada's prospects of facilitating a global deal will be hampered by its reluctance to show leadership at home.

The Sierra Club, an environmental group, says developing nations, which increasingly contribute to global warming, will be less likely to agree to new targets while leading industrialised nations such as Canada have shown little commitment.

Critics say Canada's policy of encouraging industries to cut emissions voluntarily has failed; recently released government data appear to confirm that view.

Environment Canada said emissions of carbon dioxide increased 11 per cent between 1990 and 1996, despite a 1992 pledge the country would by 2000 stabilise greenhouse gas emissions at 1990 levels. "The government hasn't done enough so far. We underestimated how difficult this challenge would be," a Canadian official acknowledged.

Environmentalists argue the only way for Canada to show its commitment to the issue would be to announce before the Kyoto meeting a comprehensive plan to reduce greenhouse gases.

Others have suggested Canada adopt an emissions trading programme similar to the sulphur emissions trading scheme in effect in the US. "Canada has absolutely no action plan and absolutely no clue on how it will deliver on its commitments," said Robert MacIntosh, policy director of the Pembina Institute, an environmental think tank in Alberta.

The Canadian government will not be likely to make important policy decisions on how to achieve those targets until after an international agreement is signed. Industry leaders in Canada are insisting on clear targets before agreeing to take action; the government is reluctant to impose measures unilaterally that would be politically unpopular in energy-rich Alberta.

Some cabinet ministers worry the country's economic recovery could be jeopardised should the federal government stymie industrial activity by imposing user taxes on fossil fuels or mandating emissions targets.

Officials and industry leaders argue that any comprehensive plan adopted in haste would almost certainly be inadequate.


Chrétien: tougher stance

Millennium bomb risk may trigger US law

By Mark Suzman in Washington

The US Senate is to consider legislation that would require all publicly traded companies to disclose progress in dealing with potential problems resulting from the effect of the year 2000 on computer systems – the so-called millennium bomb.

Bob Bennett, chair of the Senate banking subcommittee on financial services and technology, said yesterday possible risks to investors and the economy as a whole of companies being unprepared for the problem were so enormous that he was preparing legislation to force them to take action.

"The year 2000 problem is more than a computer problem; it is a pervasive business issue for which there is no quick fix," he said at a hearing on the issue. "A failure in one computer system could not only devastate the operation it controls but could domino through other systems and cause other seemingly unrelated operations to shut down."

The problem arises from the fact that many computer systems use a two digit dating system, making it impossible for them to tell whether 00 represents 2000 or 1900 and potentially disrupting all other activities.

Testifying at the hearing, Edward Yardeni, chief economist at Deutsche Morgan Grenfell, endorsed Mr Bennett's call, warning that the problem was a "very serious threat" to the US economy that could spark a global recession. "I believe that all businesses, both incorporated and unincorporated, should be required by a new law to publicly reveal their cumulative and current quarter outlays on fixing the year 2000 problem," he said.

Mr Yardeni said he had spent six months collecting information on the problem, and estimated there was a 40 per cent chance of a 12-month recession starting in January 2000 at least as severe as that caused by the the 1973-74 oil shock. "If the supply of information is disrupted, many economic activities will be impaired, if not entirely halted," he said.

Mr Bennett said his legislation would require disclosure of a company's progress in assessing the impact of the year 2000 problem as well as regular reports on the implementation of any necessary changes to its computer systems.

Senate attack on Microsoft

By Louise Kehoe in San Francisco and Mark Suzman in Washington

Microsoft became the target of sharp criticism yesterday at a US Senate hearing on the future of the internet in which the software industry leader was accused of attempts to monopolise the new online medium.

Senator Orrin Hatch of Utah, chairman of the Senate judiciary committee, said the hearings marked the start of an "ongoing examination" of critical issues facing policymakers and regulators in the digital age. He said that, while Microsoft was not the subject of the hearing, the issue could not be ignored. "I have not made any secret of the fact that I have serious concerns about Microsoft's recent efforts to exercise its monopoly power and I plan to continue to examine the company's practices," he said.

The senator, whose state is home to Novell, one of Microsoft's strongest competitors, has long been an outspoken Microsoft critic.

The Justice Department last month accused Microsoft of violating a court order marketing its Internet Explorer browser software as part of the Microsoft Windows operating system and said it would seek fines of $1m a day for alleged anti-trust violations.

Microsoft said it had offered to testify before the Senate panel but had been turned down on the grounds that the hearings were "not about Microsoft".

However, Microsoft was not without its supporters. In testimony before the Senate panel, Charles Rule, a lawyer at the Washington firm of Covington and Burling, warned that existing anti-trust legislation was "ill-equipped" to deal with the pace of innovations in the high-tech sector.

Separately yesterday, the Senate commerce committee overwhelmingly approved a controversial bill to restrict states and cities from imposing new taxes on internet access services.

Growth prospects in US look good

By Gerard Baker in Washington

Immediate prospects for US economic growth continue to look positive, according to the latest monthly analysis of recent statistics, published yesterday.

The Conference Board, a private sector research group, said its main index of leading economic indicators rose by 0.2 per cent in September. The rise followed similar increases in July and August and reflected the continuing strong performance of the economy and financial markets this year.

The index, a composite of 10 monthly published indicators, is a reasonably accurate predictor of economic activity in about six months' time. In the six months to September, the index increased by 0.9 per cent, and seven of its 10 components advanced.

The main contributors to the increase in September were a fall in weekly claims for unemployment insurance and money supply growth.

The index of coincident indicators, which reflect current growth, increased by 0.3 per cent.

The figures are consistent with recent data published up to last month which suggested the outlook for growth remained positive.

The US economy expanded at an annual rate of 3.5 per cent in the third quarter, following increases of 3.3 per cent and 4.9 per cent in the previous two quarters.

This pace of growth is widely regarded by economists as too fast to be sustained without a resurgence of inflation, but so far price pressures seem muted.

The main question for economists is whether the pace of growth will continue over the next few months.

Last week Alan Greenspan, the Federal Reserve chairman, hinted that the recent stock market turmoil and the continuing crisis in south-east Asia would help slow the economy.

"The combined impact of the Asian crisis and the stock market correction will slow 1998 growth by 0.5 to 1 percentage points," said John Lipsky, chief economist at Chase Manhattan Bank in New York.

Against that, equities have recovered much ground lost last week and direct effects on US exporters of a slowdown in Asian countries may not significantly erode growth prospects.

Defence entente with Russia to widen

By Alexander Nicoll in Moscow

Britain and Russia yesterday agreed to strengthen scientific and technical co-operation in the defence field as part of a wide accord on military contacts.

A proposal by George Robertson, the chief UK defence minister, to step up links with Russian defence scientists was welcomed at a meeting in Moscow with General Igor Sergeyev, the Russian defence minister.

The UK government's specialist research body, the Defence Evaluation and Research Agency, already has an office in Moscow which taps the expertise of Russian scientists for civilian and commercial uses.

The purpose of yesterday's agreement is to deepen contact with Russian research organisations. The chief scientist of the UK Ministry of Defence is expected to visit Moscow next year.

Gen Sergeyev and Mr Robertson signed an agreement to set up a Russo-British commission on co-operation between the two defence ministries. It will recommend areas for joint scientific research work and exchanging information on the procurement of equipment.

Gen Sergeyev accepted the British invitation for Russian experts to visit the centre for land mine removal techniques which Mr Robertson is setting up. He said the military supported President Boris Yeltsin's acceptance that Russia should work towards a land mine ban.

Mr Robertson's visit to Moscow was intended to establish structures for heightened contact between the armed forces, part of a British government plan to develop "defence diplomacy" as a means of cementing lasting peace in the post-Cold War era. "We came here with a positive programme which has been agreed," he said.

Mr Robertson sought to ease Russia's opposition to Nato expansion: "We understand that there are still apprehensions in Russia about Nato expansion, but it is a strong view of the new British government that a limited expansion of NatO is designed to produce stability in central Europe, and that side-by-side with that will go a bilateral relationship."

The two ministers agreed to plan joint naval exercises for the first time. Naval staff will be asked to develop a programme which would be formally agreed at the ministers' next meeting in early December. Mr Robertson said: "Co-operation between the two great navies will start very quickly indeed."

Observer, Page 13

Reuters

Defence chiefs Sergeyev and Robertson in Moscow yesterday

Businesses demand reforms in export promotion

By Stefan Wagstyl, Industrial Editor

British business has urged the government to review radical options for the future of trade promotion, including the possible merger of the roles of the Foreign Office and the Department of Trade and Industry in export support and handing over some services to the private sector.

The Confederation of British Industry – the principal employers' organisation – the British Chambers of Commerce and the Institute of Export presented their demands unanimously at a government-sponsored Export Forum, composed of government officials and business executives, which was established this summer to examine export promotion.

The forum, which presented its conclusions yesterday, limited itself to proposals for improving the existing regime. Amid tensions between the government officials and the business representatives, it concluded that it did not have the remit or the time to consider structural reforms. However, the CBI and its allies have seized the opportunity to press ministers for a second panel to examine more radical options.

The report says: "Strong views were expressed by the private sector representatives that substantial structural change was necessary and would lead to more effective export promotion. A number of options were presented to the forum ... some of which raised questions over interdepartmental relationships, particularly those between the DTI and the FCO (Foreign Office.)"

Mr Ian Campbell, director general of the Institute of Export, said these words referred to calls from the private sector representatives for an examination of structural issues. He said the private sector wanted the opportunity to review the structure.

Meanwhile Lord Clinton-Davies, the trade minister, and Derek Fatchett, the foreign minister responsible for trade, supported most of the report's other conclusions, including a call to focus new export initiatives on just 12 priority markets instead of the current 80. The markets are western Europe and the US for new exporters and for experienced exporters Brazil, China, Egypt, India, Japan, Poland, Russia, South Africa, south east Asia and Turkey.

UK NEWS DIGEST

US-style lottery ruling delayed

Ministers have delayed publication of a paper on the possible banning of a new rival to the national lottery, even though it will be launched in hundreds of pubs and clubs later this month. The Home Office is undecided whether to attempt to ban the Pronto! game, a rapid draw contest similar to the Keno games seen in bars across the US, on the grounds that it combines gambling with alcohol, and could be addictive.

George Howarth, a Home Office minister, accepts that legislation would be needed to stop the game, which will be run by Inter Lotto, a charity lottery manager partly owned by Crown Leisure. The Home Office had promised to publish a consultation paper on rapid-draw gambling in pubs and clubs in October, but there is still no sign of this.

The Pronto! game has also alarmed Camelot, the consortium which runs the National Lottery, whose application for permission to run its own rapid-draw games in pubs and clubs has been rejected by the lottery regulator. The members of Camelot are Cadbury Schweppes, the UK food and drink group; De La Rue, the security printers; Racal Electronics; ICL, a UK offshoot of Fujitsu; and GTech, the US lottery equipment supplier. *George Parker*

■ CAR TRADE TAX FRAUD

Ex-chief 'would not survive trial'

The Inland Revenue yesterday finally dropped its attempts to prosecute Octav Botnar, the former chairman of Nissan UK, the car distributors at the centre of Britain's largest ever tax fraud.

Two warrants for the arrest of Mr Botnar, who has lived in Switzerland since the discovery of the fraud, were withdrawn on the grounds of his severe ill health. Mr Botnar, who is 84 and suffers from a number of serious illnesses, would not survive any criminal trial, the revenue told magistrates in Worthing, southern England.

However, Mr Botnar afterwards continued to maintain his innocence and insisted the decision to withdraw the warrants had nothing to do with his health. He accused the revenue of seeking to avoid the real issues about the case, which was due to be heard in court later this month.

The fraud, carried out between 1975 and 1992, involved Nissan UK artificially inflating freight charges to enable money to be siphoned off to a Swiss bank account. It enabled the company to evade £55m ($91m) in corporation tax. The revenue claimed a total loss to state funds of £87m. *John Mason*

■ RETAIL BANKING

$9m call centre for N Ireland

Abbey National is to open a call centre in Belfast, the capital of Northern Ireland, in an investment worth £5.8m ($9.62m), it announced yesterday. The bank's new call centre will create 338 jobs as part of an expansion of its existing customer telephone services.

At the same time it is establishing a financial software support and development centre, which will provide 100 jobs, mostly at graduate level, working on projects for the retail banking sector. Abbey National has been given £3.3m by the government's industrial development board towards the cost of the expansion.

Lord Tugendhat, chairman of Abbey National, said the former mutually-owned home loans and savings institution had chosen Belfast because of the good supply of well-educated people with a positive attitude to work.

■ MOBILE PHONES

Wider supply of services urged

Cellnet, the UK-based mobile phone operator, and Logica, a leading UK information technology group, are collaborating in the creation of a forum to encourage the development of commerce services for mobile phones.

The two companies suggest that customers will be using these services within 18 months. A pioneering example is the "Barclaycard phone" through which customers can see their Barclays bank and credit card balances. Organisations which have indicated they intend to join the forum include Alcatel of France, American Express of the US, the British Retail Consortium and Sony of Japan. *Alan Cane*

■ REGIONAL INVESTMENT

County attracts French projects

Locate in Kent, established less than a year ago to attract investment to the south-east England county of Kent, attracted 28 projects by UK and other companies in its first half year. Projects announced this year include SBE, a French mobile telephone repairer; and Master Memory Europe, relocating from France to the port of Dover, which will market computer components.

Locate In Kent has increased its target for creating jobs by 40 per cent for 1997-98. The new target follows a study by accountants Price Waterhouse, setting the organisation's performance against that of other UK regional development bodies. *Brian Groom*

EU loophole is sought in advert ban on tobacco

By Nicholas Timmins and John Griffiths

The UK will back an EU directive banning almost all forms of tobacco advertising and promotion if an exemption from the sports sponsorship ban is granted for Formula One, Tessa Jowell, the minister for public health, has told her opposite numbers in the European Union.

In return, Formula One has agreed in principle to negotiate a voluntary reduction worldwide in the visibility of the £100m ($166m) a year it takes in tobacco sponsorship.

If other European countries agree, the directive could be approved next month, while the protection of Formula One's tobacco money raises the chances of a successful stock market float next year.

Ms Jowell wrote to fellow health ministers yesterday arguing that the "global" nature of Formula One means a ban could not effectively be enforced. The sport would move to eastern Europe and Asia. With no controls over tobacco advertising and no means of banning television pictures, the likely result would be more exposure of young people to tobacco promotion through Formula One than at present.

Details of the new curbs have yet to be negotiated but restrictions on circuit, on-car and driver overalls advertising are all under consideration. The EU's negotiating position will be weak, however, if the directive is approved on December 4 ahead of an agreement with FIA.

The UK's move was described as "a complicating factor" by the office of Padraig Flynn, the EU commissioner responsible for the directive, and it is not clear that other countries will agree to the concession.

However, Action on Smoking and Health branded it "a sell out". Formula One "is effectively one big tobacco billboard", a spokesman said.

Gases talks underline EU-US gap

By Bruce Clark
in Washington

A huge gap between European Union and US attitudes to the issue of climate change was underlined yesterday when senior EU officials put to their US counterparts the argument for tough action to limit greenhouse emissions.

With less than a month before an international conference on global warming in Kyoto, Japan, there was little sign of any break in the deadlock over how much the developing countries should be required to do.

Senior US legislators have warned this week that, even in the event of the Kyoto talks yielding agreement on a climate change convention, it would barely gain 15 of the 67 votes needed for ratification in the US Senate.

Even if the US administration initials a treaty and pledges not to send it for ratification unless developing countries join the effort, the lobby groups opposed to any curbs on carbon emissions would cause "an almighty row" on Capitol Hill, according to one congressional staffer.

The US proposal for industrial countries to stabilise their heat-trapping emissions at their 1990 levels between 2008 and 2012 was dismissed by representatives of Britain, the Netherlands, Luxembourg and the European Commission as far too weak to inspire the developing nations to follow suit.

"The US position will not in our view get the developing countries on board," said Michael Meacher, the UK environment minister. He added that Washington could not expect to win approval for its demands for flexibility and "joint implementation" of agreed curbs – through an international emissions trading system – unless it accepted more ambitious targets.

The EU, in a position dismissed by almost all politicians in Washington as unrealistic, favours reducing emissions in 2010 to a level 15 per cent below that of 1990.

But the widest gap, evident at a conference in Bonn last month and showing no sign of narrowing, was over the terms in which the developing countries – whose emissions are not part of the formal Kyoto agenda – should be required to help combat global warming.

The US administration has called for developing nations to agree by 2005 to limits on their carbon emissions. But this has been rejected as unrealistic by industrial nations in Europe, and denounced by the developing states themselves.

US opponents of early action, meanwhile, are warning that, even if the developing world accepted that timetable, it would not make the imposition of limits on US industry any more acceptable to them.

One of the few US interest groups which has wholeheartedly welcomed rising international concern over climate change is the nuclear industry, which has been publicising the virtual absence of dangerous air pollution from its variety of power generation.

The nuclear industry is showing rising self-confidence after a run of public-policy successes: an agreement last week to sell US nuclear technology to China, and a vote in the House of Representatives, similar to one passed earlier in the Senate, that would oblige the administration to build a store for nuclear waste.

Canada buckles on greenhouse targets

Proposal is seen as face-saver by the prime minister, writes Scott Morrison

Canada is expected to arrive at a global environmental conference next month proposing to extend a previously agreed year-2000 deadline for stabilising emissions of greenhouse gases at 1990 levels, but calling for reduction targets beyond 2012.

The Canadian government, which at the 1992 Earth Summit in Rio de Janeiro established itself as a leader in the fight against global warming, appears to have buckled to pressure from industry leaders and western interests to adopt less ambitious short-term targets.

The proposal is seen as a face-saving stance for Jean Chrétien, the prime minister, who has vowed to assume a tougher stance on the issue than the US, which has also urged an extension of the 2000 deadline.

Environmentalists, however, are outraged Canada has failed to take a stance that restores the country's once enviable environmental reputation, which has been damaged by reports it has failed to live up to a 1992 treaty to curb emissions.

Critics say Mr Chrétien's stance is a weaker proposal than the US position because Canada has not announced an action plan to achieve those reduction targets.

It appears less likely Canada will play a pivotal role at negotiations next month in Kyoto, Japan, where the European Union will push for a 15 per cent cut from 1990 levels by 2010.

Some Canadian officials suggest they might help broker an agreement in Japan, much as at the Rio summit, but environmentalists say Canada's prospects of facilitating a global deal will be hampered by its reluctance to show leadership at home.

The Sierra Club, an environmental group, says developing nations, which increasingly contribute to global warming, will be less likely to agree to new targets while leading industrialised nations such as Canada have shown little commitment.

Critics say Canada's policy of encouraging industries to cut emissions voluntarily has failed; recently released government data appear to confirm that view.

Environment Canada said emissions of carbon dioxide increased 11 per cent between 1990 and 1996, despite a 1992 pledge the country would by 2000 stabilise greenhouse gas emissions at 1990 levels. "The government hasn't done enough so far. We underestimated how difficult this challenge would be," a Canadian official acknowledged.

Environmentalists argue the only way for Canada to show its commitment to the issue would be to announce before the Kyoto meeting a comprehensive plan to reduce greenhouse gases.

Others have suggested Canada adopt an emissions trading programme similar to the sulphur emissions trading scheme in effect in the US. "Canada has absolutely no action plan and absolutely no clue on how it will deliver on its commitments," said Robert MacIntosh, policy director of the Pembina Institute, an environmental think tank in Alberta.

The Canadian government will not be likely to make important policy decisions on how to achieve those targets until after an international agreement is signed. Industry leaders in Canada are insisting on clear targets before agreeing to take action; the government is reluctant to impose measures unilaterally that would be politically unpopular in energy-rich Alberta.

Some cabinet ministers worry the country's economic recovery could be jeopardised should the federal government stymie industrial activity by imposing user taxes on fossil fuels or mandating emissions targets.

Officials and industry leaders argue that any comprehensive plan adopted in haste would almost certainly be inadequate.

Chrétien: tougher stance

Brazil to push through fresh budget cuts

By Geoff Dyer in São Paulo

The Brazilian government is preparing new cuts in next year's budget in an attempt to repair the damage to the credibility of its economic policy caused by the turmoil in world financial markets.

Fernando Henrique Cardoso, Brazil's president, met yesterday with congressional leaders to urge them to accelerate the passage of crucial constitutional reforms aimed at reducing the fiscal deficit.

"We have to take, as everyone knows, tough but necessary decisions to secure the value of and confidence in the Real," said Mr Cardoso. "History does not pardon those who hesitate in these moments."

The renewed impetus on the fiscal front came as Brazilian financial markets experienced another nervous day, following the fall in Hong Kong. Shares on the São Paulo stock exchange's Bovepsa index of leading companies initially fell, but by mid-afternoon had risen 2.95 per cent to 10.149 points.

Brazilian shares dropped 22.1 per cent last week after the upheaval in world financial markets led to increased fears that Brazil, which has an overvalued currency and large fiscal and current account deficits, would be forced into a devaluation.

The government doubled interest rates on Thursday in order to defend the currency, which helped bring stability to the foreign exchange market but which will aggravate Brazil's fiscal problem by increasing interest costs.

Ministers refused to give details of the budget cuts or indicate when they might be finalised. Economists estimated the government would try to trim the 1998 budget by up to $2bn, by reducing investment or by closing state-owned enterprises.

In the first breaking of ranks among the government-aligned political parties, Paulo Maluf, leader of the rightwing Brazilian Progressive Party (PPB), described the rise in interest rates as "pornographic and unacceptable".

● There was some good economic news yesterday when it was announced that the trade deficit for October was $829m, down from $1.23bn the previous month. The result, which was below forecasts, compares with a deficit of $1.31bn in the same month in 1996, making it the first time this year that the monthly trade deficit has been lower than the same period last year.

The figures showed that imports in October were 2.2 per cent lower than in September, suggesting consumer demand for imported products has slowed. The sharp fall in Brazilian share prices over the past two weeks has in part been prompted by the rise this year in Brazil's trade deficit.

Millennium bomb risk may trigger US law

By Mark Suzman
in Washington

The US Senate is to consider legislation that would require all publicly traded companies to disclose progress in dealing with potential problems resulting from the effect of the year 2000 on computer systems – the so-called millennium bomb.

Bob Bennett, chair of the Senate banking subcommittee on financial services and technology, said yesterday possible risks to investors and the economy as a whole of companies being unprepared for the problem were so enormous that he was preparing legislation to force them to take action.

"The year 2000 problem is more than a computer problem; it is a pervasive business issue for which there is no quick fix," he said at a hearing on the issue. "A failure in one computer system could not only devastate the operation it controls but could domino through other systems and cause other seemingly unrelated operations to shut down."

The problem arises from the fact that many computer systems use a two digit dating system, making it impossible for them to tell whether 00 represents 2000 or 1900 and potentially disrupting all other activities.

Testifying at the hearing, Edward Yardeni, chief economist at Deutsche Morgan Grenfell, endorsed Mr Bennett's call, warning that the problem was a "very serious threat" to the US economy that could spark a global recession. "I believe that all businesses, both incorporated and unincorporated, should be required by a new law to publicly reveal their cumulative and current quarter outlays on fixing the year 2000 problem," he said.

Mr Yardeni said he had spent six months collecting information on the problem, and estimated there was a 40 per cent chance of a 12-month recession starting in January 2000 at least as severe as that caused by the the 1973-74 oil shock. "If the supply of information is disrupted, many economic activities will be impaired, if not entirely halted," he said.

Mr Bennett said his legislation would require disclosure of a company's progress in assessing the impact of the year 2000 problem as well as regular reports on the implementation of any necessary changes to its computer systems.

Senate attack on Microsoft

By Louise Kehoe in San Francisco and Mark Suzman
in Washington

Microsoft became the target of sharp criticism yesterday at a US Senate hearing on the future of the internet in which the software industry leader was accused of attempts to monopolise the new online medium.

Senator Orrin Hatch of Utah, chairman of the Senate judiciary committee, said the hearings marked the start of an "ongoing examination" of critical issues facing policymakers and regulators in the digital age. He said that, while Microsoft was not the subject of the hearing, the issue could not be ignored. "I have not made any secret of the fact that I have serious concerns about Microsoft's recent efforts to exercise its monopoly power and I plan to continue to examine the company's practices," he said.

The senator, whose state is home to Novell, one of Microsoft's strongest competitors, has long been an outspoken Microsoft critic.

The Justice Department last month accused Microsoft of violating a court order marketing its Internet Explorer browser software as part of the Microsoft Windows operating system and said it would seek fines of $1m a day for alleged anti-trust violations.

Microsoft said it had offered to testify before the Senate panel but had been turned down on the grounds that the hearings were "not about Microsoft".

However, Microsoft was not without its supporters. In testimony before the Senate panel, Charles Rule, a lawyer at the Washington firm of Covington and Burling, warned that existing anti-trust legislation was "ill-equipped" to deal with the pace of innovations in the high-tech sector.

Separately yesterday, the Senate commerce committee overwhelmingly approved a controversial bill to restrict states and cities from imposing new taxes on internet access services.

Growth prospects in US look good

By Gerard Baker
in Washington

Immediate prospects for US economic growth continue to look positive, according to the latest monthly analysis of recent statistics, published yesterday.

The Conference Board, a private sector research group, said its main index of leading economic indicators rose by 0.2 per cent in September. The rise followed similar increases in July and August and reflected the continuing strong performance of the economy and financial markets this year.

The index, a composite of 10 monthly published indicators, is a reasonably accurate predictor of economic activity in about six months' time. In the six months to September, the index increased by 0.9 per cent, and seven of its 10 components advanced.

The main contributors to the increase in September were a fall in weekly claims for unemployment insurance and money supply growth.

The index of coincident indicators, which reflect current growth, increased by 0.3 per cent.

The figures are consistent with recent data published up to last month which suggested the outlook for growth remained positive.

The US economy expanded at an annual rate of 3.5 per cent in the third quarter, following increases of 3.3 per cent and 4.9 per cent in the previous two quarters.

This pace of growth is widely regarded by economists as too fast to be sustained without a resurgence of inflation, but so far price pressures seem muted.

The main question for economists is whether the pace of growth will continue over the next few months.

Last week Alan Greenspan, the Federal Reserve chairman, hinted that the recent stock market turmoil and the continuing crisis in south-east Asia would help slow the economy.

"The combined impact of the Asian crisis and the stock market correction will slow 1998 growth by 0.5 to 1 percentage points," said John Lipsky, chief economist at Chase Manhattan Bank in New York.

Against that, equities have recovered much ground lost last week and direct effects on US exporters of a slowdown in Asian countries may not significantly erode growth prospects.

PART 11 OF A 12-PART SERIES • PUBLISHED ON WEDNESDAYS AND FRIDAYS

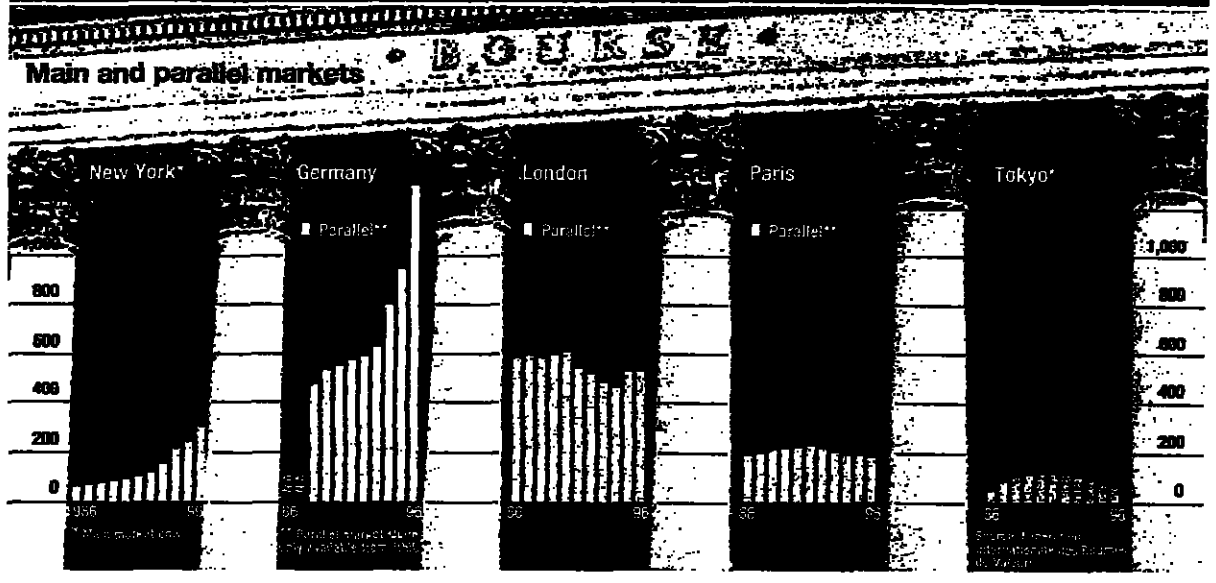
THE GLOBAL COMPANY

Financial Management Tapping global capital

Growth's financial complications

A company that seeks to extend operations around the world needs new financial structures to match, says **Martin Dickson**

Overseas access: number of foreign companies listed



When Hoechst, the Frankfurt-based chemicals and drugs group, listed its shares on the New York Stock Exchange six weeks ago it was a symbolic acknowledgment that a company which aspires to be global in operations nowadays must also be global in its approach to finance.

Intensifying international competition and high domestic costs are forcing German businesses – among others – into radical restructuring and a much greater reliance on global securities markets.

Hoechst is one of the restructuring pace-setters, aiming to transform itself from a diversified chemicals group into a life-sciences business focused sharply on shareholder value. It sees a New York listing as a necessary part of this, even though it has no immediate plans to raise new funds.

Says Jürgen Dormann, the chairman: "It is our conviction that this company should become more international. The financial markets are open and interconnected, so why should we exclude direct access to the US capital markets?"

In this, as in all other aspects of finance, global companies are finding life increasingly complex.

The risks inherent in financial derivatives, and the speed at which markets change, have intensified the central challenge facing financial officers: how do you exert the right degree of control over operations which are necessarily decentralised, and know local conditions better than you, while at the same time minimising risk and trying to achieve the lowest cost of capital?

Companies adopt widely differing approaches to control, but common to all is the growth of headquarters guidelines on what is permitted by subsidiaries. These range from the establishment of ideal capital structures for each country, for tax planning purposes, to rules on foreign exchange hedging or the use of exotic instruments.

For a significant number, clearer guidelines have gone hand-in-hand with greater exertion of control by the centre. "Compared to 10 years ago, there's a much higher tendency for centralisation of financial treasury control at Unilever," says Jan Haars, treasurer of the Anglo-Dutch group. "The size of the company, and the risks involved, means it makes a lot of sense to look at it centrally."

A similar trend is under way at General Motors, the US's largest car manufacturer, which has just set up a treasury centre in Singapore to serve its Asian operations. "There's a lot of potential to bring efficiencies into the system by centralising," says Mark Greenquist, assistant treasurer. "There's no point having a couple of people in accounting doing foreign exchange hedging when you can have people at the centre doing it for an entire region."

> The risks inherent in financial derivatives, and the speed of markets, have intensified the challenge facing financial officers

Central control also allows a company to manage the group's overall risk position much more efficiently. Eberhard Cleff, treasurer at Hoechst, says many of its local managers can decide their hedging strategies, within the group's overall guidelines, but they have to offer corporate headquarters the right of first refusal in executing any deal at market conditions, since it can offset a lot of their risk positions internally.

"They have semi-autonomy but we can still manage the group position," he explains. "We operate like a quasi-bank, without being a profit centre."

In the tax field, countries are becoming more aggressive in their approach to multinationals. Says Roger Muray of Ernst & Young: "All the time, individual countries' tax systems are working against the company's desire to globalise."

Take, for example, the issue of transfer pricing – the internal prices charged by one arm of a multinational to another. John Coombe, finance director of Glaxo Wellcome, the UK pharmaceuticals group, says this used to be a subject of debate mainly with the British and US tax authorities, but increasingly other countries are spotting the tax opportunities. "As more countries get in on this it becomes a major logistical exercise . . . We have supplied literally millions of documents to the US. Industries have grown up building computer programs to analyse these things."

As for funding their global ambitions, multinationals increasingly accept that to achieve the lowest cost of capital they have to tap the international markets.

For many non-American companies, a vital element is an equity listing in the US, the world's most liquid and efficient market. For US companies, the rest of the world is not so compelling, though even they can find useful the additional liquidity of international listings: in 1992, when General Motors was desperate to bolster itself with fresh equity, it undertook a roadshow to Europe and Asia.

Says Mr Greenquist: "It would be myopic to forget about the rest of the world. But we also have to be realistic – the US is still the largest, deepest capital market."

Greater reliance on international markets is forcing global companies to pay more attention to debt rating agencies and to investors on the cutting edge of the "shareholder value" debate – most of them in the US.

For example, more sophisticated institutional investors are focusing much greater attention on whether companies are gearing up their balance sheets sufficiently with cheap debt, rather than expensive equity. That is exposing some transatlantic cultural differences, since European companies tend to have a more cautious approach to financial leverage.

And while most European companies still focus on traditional performance measures, such as profitability ratios and earnings per share growth, US fashions are forcing them to look at new yardsticks, designed to measure the value they are creating for investors, such as economic value added (EVA) and total shareholder return (TSR).

Unilever, for example, recently adopted TSR as its corporate financial objective, in place of earnings growth. It will monitor its performance against a peer group of 20 multinationals which broadly match its spread across products and regions.

"If you're a global company, new valuation techniques are just something you have to take on board," says Nick Pasricha of Ernst & Young's corporate finance practice, "because a proportion of your investors are subject to that influence."

All this, then, should make it harder for companies to indulge in the kind of expansion which dots the map with the corporate logo but produces poor investment returns. Global finance brings with it a healthy check on imperial ambition.

Case study Deutsche Telekom / Telefonos de Mexico

Benefits of funding from overseas

Ralph Atkins and **Leslie Crawford** on the effects of privatisation

For two former state-owned telecommunications monopolies, Telefonos de Mexico and Deutsche Telekom, there was no alternative to the global capital markets when they were opened to private-sector ownership. Telmex made the jump in 1990, Deutsche Telekom in November 1996.

In both cases, domestic financial markets did not provide enough capital to absorb such huge offerings. "The German market is not so mature," says Joachim Kröske, Deutsche Telekom's finance director. Faced with the limited scale of Mexican capital markets, Telmex had been tapping international bond markets for years. Even today, only $1bn of the company's $3.3bn long-term debt is in pesos.

Opening up to a wider world has had beneficial side-effects. Mr Kröske says Deutsche Telekom's international listing, and the demands it placed on the group to boost shareholders' interests, fitted with the group's strategic ambitions. "We needed the access to capital markets because of the demand for equity, but if we wanted to be a global player we had also to meet global standards."

In Telmex's case, international ownership provided scope for foreign alliances. Southern Bell Corporation of the US and France Telecom International each own 24.5 per cent of Telmex's voting stock, and hold two of the five seats on Telmex's executive committee, in charge of the day-to-day running of the company. The stock, with a market capitalisation of $20bn, is traded in New York, Toronto, Frankfurt and Tokyo as well as in Mexico City.

Following Deutsche Telekom's listing, 33 per cent of the company's shares were held outside Germany, including 14 per cent in the Americas and 8 per cent in the UK. In Telmex's case, almost 85 per cent of the free float of the stock is held by foreigners, making Telmex the most liquid American Depositary Receipt on the New York Stock Exchange.

In both cases, the globalisation of the companies' finances has changed the way the companies report their results. Deutsche Telekom had to adjust to US GAAP (Generally Accepted Accounting Principles) – which Mr Kröske says the group believes is better anyway for investors. "It gives investors more and better information". Quarterly results and divisional breakdowns are still in the pipeline, but the company has started extensive twice-a-year international results roadshows.

Telmex has also had to respond to foreign investors. Differences between Mexican and US GAAP, mainly affecting inflation accounting, pension benefits, and deferred income taxes, are reconciled once a year. Four times a year, Telmex issues quarterly results and holds conference calls which attract, on average, about 150 foreign fund managers.

Mr Kröske – now used to presenting Deutsche Telekom's pitch around the world – says the biggest differences in the demands of investors are between retail and wholesale investors, rather than between different nationalities. But there are geographic subtleties. US and Asian investors tend to be less concerned about operational matters. "The US investors look at your strategy: how is your approach to the US? Are you only a telecommunications company or do you want to be an information company? But the British or other Europeans look at whether you have cut costs, what your advertising budget is."

For Telmex, the change of ownership was just the beginning. "Privatisation was the point of departure for accelerated, dynamic change," says the company. A year after Deutsche Telekom's partial privatisation, Mr Kröske says it is hard to separate the effects on management of listing internationally from the company's broader transformation. He says, however: "It is very useful to have foreign investors. They also make you fit for international competition. The questions they ask, what they stress or do not stress, gives you an idea of how other people look at your company. You can always learn something."

Own words Tore Bertillson, SKF

Taking a twin-track route to investment decision-making

Tore Bertilsson is finance director of SKF, the Swedish bearings company.

We have tried to put in place a financial reporting structure which closely scrutinises costs and investment without hampering operational management or strangling innovation.

Basically, we have a twin track approach that gives production managers in different parts of the world – whether Sweden, Malaysia or Brazil – relative freedom on investment decisions.

In a company of this size, it would create a terrible bottleneck if managers had to refer to the Gothenburg headquarters to approve every spending requirement.

A factory extension in Italy, for example, would come across my desk only if it was an exceptionally large investment. Normally, the approval would be given by the country manager. That does not suggest any looseness in financial controls – only that we believe line managers are best placed to take local spending decisions.

Under the SKF financial reporting system, any sizeable investment would be subject to very strict guidelines. A manager seeking a large capital injection to expand would have to demonstrate the projected cash flow and likely payback on the money laid out.

So there is a set of investment frames, related to the size of the business and spending requirements, which would be approved at different levels of the organisation.

This process works in parallel with the group treasury function. The group treasurer, who reports to me, has regional treasurers based in some our largest markets – Germany, France, Italy, Singapore and North America. Their role is to calculate likely returns on investment and to organise access to capital.

These regional treasurers have responsibility for drawing up the capital structure of a fundraising exercise in a particular territory.

There are two exceptions, however. The treasury functions in Asia and South America are now being centrally administered from Gothenburg, partly because we need to manage currencies better than we have in the past.

For all of us, there is a growing pressure to expand in emerging markets. At SKF, we want to reduce our dependence on western Europe, which accounts for 65 per cent of our manufacturing base.

The group has made a strong start by capturing 35 per cent of the South American market and establishing plants in Malaysia, India, China, Korea and Indonesia. The growth rates there are much more attractive than in western Europe.

But the next phase of growth will probably be eastwards in Europe, in countries such as Poland. Demand in that part of the world grew by 40 per cent last year. It is an under-utilised area both for sales and production and we want to step up our investment there.

If we can produce at lower cost outside western Europe, there could be a shift in future manufacturing capacity. It is not something that will happen overnight, but if we don't make a start someone else will do it.

Interview by Tim Burt

In Friday's FT: Conclusion - The global company in the 21st century
Victor Fung. Cemex

صكرا من الاصل

مكرر من الأصل

Royal Opera House close to insolvency, MPs are told

By Liam Halligan and Antony Thorncroft

The Royal Opera House is on the point of insolvency, and could cease trading within a week, Lord Chadlington, the company's chairman, told MPs yesterday.

"If we do not find funds in the very short term, then the probability is that the house will become insolvent," he told the culture and media committee of the House of Commons.

Chris Smith, chief culture minister, said he might, in the light of Sir Richard Eyre's forthcoming inquiry into the future of Covent Garden, abolish the company's state grants in the form of a £15m ($24.9m) annual Arts Council subsidy and £78m national lottery grant.

"One option I have considered, and would ask Sir Richard to consider, is to say to the ROH, that you are on your own – no more public money," he said. Mr Smith made clear the ROH would receive funding for the current £214m redevelopment of Covent Garden.

Lord Chadlington said that although the opera company's financial situation was "grave", there was a "small opportunity" that a private donor would emerge.

"Several third parties have been approached," he said, without disclosing details. In July, the ROH was saved from insolvency by a £2m donation from a benefactor.

Gerald Kaufman, committee chairman, asked Lord Chadlington how long the ROH would survive, given its £4.7m deficit. "We need to know what time-scale you are on," he said. "The blood is dribbling away – we are losing money by the hour."

"We have to present balanced budgets to the Arts Council by November 12," said Lord Chadlington. "If we cannot by then, we will be engaged in crisis talks."

Lord Chadlington admitted "a lack of qualified financial personnel" had deepened the ROH's financial troubles. "The figures on which we made decisions would change month by month in the most alarming way," he said.

The committee was highly critical of the nature of the appointment of Mary Allen, ROH chief executive. Covent Garden was plunged into crisis in May when Genista McIntosh suddenly quit the post. Lord Chadlington, immediately appointed Ms Allen, his former Arts Council colleague, to the £90,000-a-year post.

"I continue to be perplexed and flummoxed by this whole affair," said Mr Kaufman.

Mr Smith was criticised over his recent call for the English National Opera to be housed at Covent Garden, along with the ROH and the Royal Ballet. Mr Smith said yesterday that to save money, the three companies should take turns to occupy the London base, as well as also going on tour.

"These are catastrophic proposals that would be infinitely more expensive," said Sir Jeremy Isaacs, former ROH general director. "The government wants more people to have access to opera, so how can it justify closing down one opera house?"

Paul Daniel, ENO music director, was also critical. "We are greatly concerned that the proposed review into the use of Covent Garden could threaten our company's unique work," he said.

Editorial comment and Observer, Page 13

Memories of 1992 haunt Labour

Membership of ERM may be necessary to join a European single currency

A spectre haunts the Labour government's declaration of intent to join the European single currency – the spectre of an exchange rate mechanism. To Labour's discomfort, Hans Tietmeyer, president of the Bundesbank, repeated this week that membership of ERM is a pre-condition for joining European economic and monetary union.

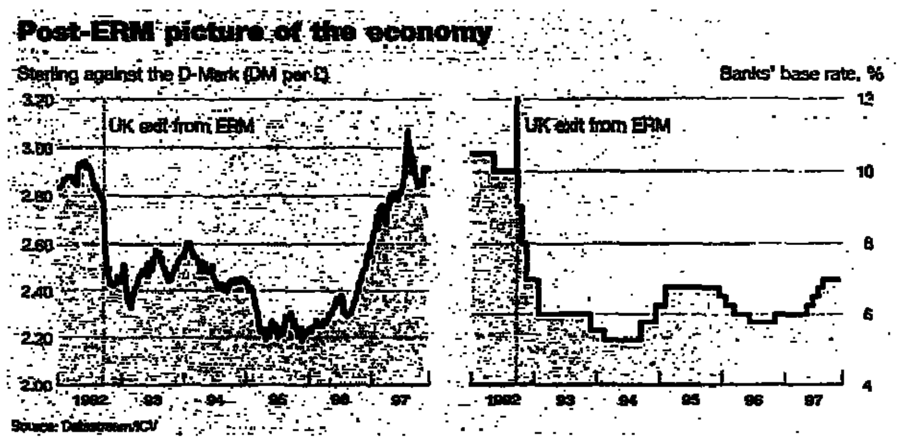
The majority of European Union governments and the European Commission share this interpretation of the 1992 Maastricht Treaty.

The issue is a political minefield for Labour because the ERM is synonymous with the collapse of the former Conservative government's European policy in September 1992 when John Major, then prime minister, was forced to withdraw sterling from the currency grid along with the Italian lira.

Labour's problem, says a Commission official, is that the public and the media conflate Emu with the ERM. "People in Britain say: look what happened when we joined the ERM."

The Maastricht treaty requires countries seeking to join Emu to meet criteria on inflation, interest rates, public deficits, government debt and exchange rate stability.

Post-ERM picture of the economy



Source: Datastream/ICV

But the treaty language on exchange rate stability is ambiguous. In protocol six, article three, the treaty says a member state should respect "the normal fluctuation margins" of the ERM "without severe tensions for at least the last two years" before EU leaders decide which countries meet the entry criteria. The decision is due on May 2, 1998.

Labour, like its Conservative predecessor, argues that events have overtaken the treaty because the old ERM died in August 1993. At that time a wave of currency speculation forced ministers to abandon the narrow fluctuation bands of 2.25 and 6 per cent in favour of a "broad band" with 15 per cent fluctation margin either side.

Labour also argues that EU finance ministers have avoided taking a collective stand on the exchange rate criterion, thanks largely to pressure from Kenneth Clarke, who was chancellor of the exchequer in the Major government. In Verona, Italy, in spring 1996, Mr Clarke also secured an assurance that membership of a new ERM 2 governing relations between the euro and currencies outside would be voluntary.

The difficulty for the British government, which is desperate to reassure other European governments it is acting in good faith, is that other Emu aspirants have joined the ERM. Finland and Italy signed up in late 1996.

Another worry is the conduct of the Swedish government. Unlike Britain, Sweden has no treaty right to opt out of Emu. But Stockholm has arrogated itself this right on the grounds that public opinion will not support early Emu entry. The dilemma for the Commission is that Sweden fulfils all criteria for joining, barring ERM membership.

A convenient solution is to point out that Sweden cannot become an Emu member because it is not a member of the ERM. The inconvenient result for Britain is that the question of ERM membership moves to centre stage. Labour's riposte is that the rest of the EU will be so relieved if Britain joins the single currency – on present planning in early 2002 after the next general election – that the ERM question will fade away.

As further insurance Eddie George, governor of the Bank of England (the UK central bank), said this week the UK would pursue "a parallel track" to Euro zone countries in terms of monetary and fiscal policy, to convince EU partners the pound would not be a rogue currency outside Emu in spite of its recent volatility.

So what is the likely outcome of the ERM conundrum? Labour could argue that the new ERM is not a straitjacket but a loose overcoat which could help Britain's path to convergence with the Emu bloc.

Britain could join the ERM for a token period after establishing a new entry rate for sterling.

But the general view is that no British government can ignore the provisions of the treaty, however positive the tone of its European policy.

Lionel Barber

Minister attacks Brussels over beef ban

By Alison Maitland in London

Jack Cunningham, the UK agriculture minister, yesterday attacked the European Commission for its slow progress in abandoning the export ban on British beef. He told the House of Commons agriculture committee his officials had been pressing the European Commission unrelentingly for progress on a scheme to allow limited exports of beef from herds certified free of BSE, or "mad cow disease".

"The ball is now in the court of the Commission," he said. "My officials have almost lived in Brussels for the last six months. But we can't control the timetable and the cycle of meetings. I get rather irritated by the length of time it takes for these committees to meet."

The UK is waiting for the Commission to put a formal proposal to end the ban on beef from certified herds – initially only from Northern Ireland because the region has a computerised cattle tracing database.

The tone of Mr Cunningham's remarks contrasted with his previously conciliatory approach to Brussels over lifting the ban. It appeared to reflect frustration at the lack of movement on the certified herd scheme and the broader scheme to allow exports of cattle born since August 1996, when possession of contaminated feed, the likely source of BSE, became illegal.

Mr Cunningham suggested it might be politically and economically convenient for some EU member states to keep the ban in place. "Britain, almost alone, is shouldering a large measure of the necessary restructuring of beef production in Europe," he said. UK slaughter schemes were removing 400,000 tonnes of beef from the market each year.

However, MPs on the agriculture committee expressed concern at the pace of government progress in tracing cattle for slaughter in the selective cull – one of the European Union's pre-conditions for lifting the ban.

The aim of the cull was to eliminate cattle most at risk of developing BSE because they could have been exposed to the same feed as animals that died of the disease. Only 18,000 of 113,000 cattle to be slaughtered have so far been traced. In addition, 40,000 have already been killed.

● One more person has died from the new variant of Creutzfeldt-Jakob Disease, related to "mad cow disease", the Department of Health said yesterday. Figures for nvCJD cases show 21 deaths to September 30.

The government is trying to build a "pro-European mainstream national consensus about the single currency", Gordon Brown, the chancellor of the exchequer, said last night, Robert Peston writes. He spoke after Tony Blair, the prime minister, and Paddy Ashdown, leader of the opposition Liberal Democrat party, had reached agreement on the need for a cross-party campaign to make Britain "less Eurosceptical". Mr Brown said the Conservatives, the largest opposition party, had "failed to take on board" that the UK had embraced a pooling of political and economic sovereignty in joining Nato and in backing the creation of the European single market.

'Mistake' allowed Spain veto on border dispute

By John Kampfner, Chief Political Correspondent

The UK government admitted yesterday it had been misled into allowing Spain theoretical power to veto British membership of the Schengen agreement on open borders in the dispute over Gibraltar.

Robin Cook, foreign secretary, told MPs a "misunderstanding" had occurred in the fraught final stages of negotiations at the Amsterdam summit in the early hours of June 18.

Member states, apparently unknowingly, approved a Spanish amendment stipulating that late arrivals into the Schengen club – whose full members are Germany, France, Belgium, the Netherlands, Luxembourg, Spain and Portugal – would have to be accepted unanimously by other member states. Incorporation of the 1985 Schengen accord on freedom of movement was part of the new treaty.

British and Irish negotiators had been under the impression that an original draft, making clear that such a move would require only qualified majority voting, would be included in the Amsterdam treaty.

Mr Cook told the foreign affairs committee of the House of Commons that the government had been dissatisfied with the "note-taking" of the presidency, then in Dutch hands, which had led to "different recollections of the text of what was said on the night".

He made clear, however, that the UK – which succeeded amid great difficulty in securing a legal right to jurisdiction over its own borders – had no intention of joining Schengen. Later on June 18, Tony Blair, the prime minister, said Amsterdam had preserved Britain's right to opt in to EU protocols.

COMMENT & ANALYSIS

Edward Mortimer

The black sheep

The EU keeps telling Turkey to pull its socks up, yet refuses to acknowledge it as part of the European family

The trouble with the European Union is that it is incapable of strategic thought.

In Brussels, foreign policy planning is divided between the Commission and the Council Secretariat, which operate quite separately from each other. But big foreign policy decisions are not taken in Brussels. They are the fruit of bargaining between member states.

The example always quoted is the decision to recognise Croatia and Slovenia in December 1991, accepted by Britain in return for German favours at Maastricht.

The decision to open membership talks with Cyprus next spring may come to be seen as a similar blunder. Adopted in March 1995 as a concession to Greece, in exchange for allowing the customs union with Turkey to go ahead, that decision was presented as an inducement to the two communities in Cyprus to settle their long-standing conflict.

So far, alas, it has had the opposite effect. Rauf Denktash, the Turkish Cypriot leader, has given it as a reason for suspending talks with Glafcos Clerides, the Greek Cypriot president, who has strengthened his military ties with Greece and ordered ground-to-air missiles from Russia. Turkey has threatened to prevent their deployment, due next year, by force if necessary. In recent weeks there have been several near clashes between Greek and Turkish forces in the Aegean.

On Monday the prime ministers of Greece and Turkey met and reaffirmed a joint statement of respect for each other's sovereignty, ruling out the use of force. But issues of substance between the two countries remain unresolved.

The EU cannot be blamed for the Cyprus conflict or for long-standing Greco-Turkish differences. But it became inextricably involved in those problems when it decided, in the late 1970s, to admit Greece as a member state.

Turkey's elite, which believes strongly in its European identity, missed a trick by not applying for EU membership at the same time. Of course Turkey could not have joined then. But faced with two applications, the EU would have had either to put off admitting Greece, or to reaffirm its intention of admitting Turkey in the future.

As it is, Greece has been able to use EU membership as a weapon in disputes with Turkey, while Turks have become increasingly resentful of the EU's unwillingness to treat them as a future member. That resentment became sharper as former communist countries in central Europe elbowed their way ahead. The inclusion of Cyprus, under a purely Greek Cypriot government, is seen by most Turks as adding injury to insult.

It need not be so. The Cyprus delegation in the talks could include Turkish Cypriots. The EU could insist on concessions to Turkish Cypriot demands as part of the terms of entry. EU membership would in any case benefit Turkish Cypriots economically. It should also give them security against renewed Greek Cypriot attacks such as occurred in 1963. Some Turkish Cypriots would get jobs in the EU bureaucracy, and Turkish would become an official EU language.

But none of that will happen unless Turkey and the Turkish Cypriots approach the process in an opportunistic spirit. At present their attitude is negative and resentful. They see Cyprus's proposed EU membership as yet another trick won by Greece at their expense, and a new version of the old Greek demand for union between Cyprus and Greece. They are bound to see it that way so long as an EU including Greece seems set on keeping Turkey out.

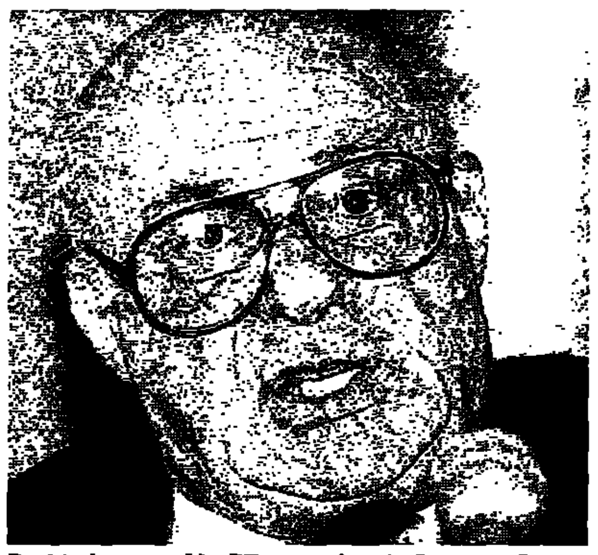
No one believes Turkey is ready to join the EU tomorrow, though under the previous government Turkish diplomats used to irritate west European audiences by saying so. The new government of Mesut Yilmaz has recognised that Turkey must first put its own house in order, notably by completing the modernisation of its economy, bringing inflation under control, and giving stronger guarantees of human rights.

A month ago Mr Yilmaz seemed to have won the backing of the German chancellor. After meeting the Turkish prime minister on September 30, Helmut Kohl issued a statement saying he firmly viewed Turkey as part of Europe and supported the goal of Turkish membership of the EU.

Since then things have gone backwards. EU leaders continue to lecture Turkey on the need for improvements in human rights, concessions in Cyprus and moderation in the Aegean, but offer nothing concrete in exchange. Germany is still blocking the idea, put forward by France, of including Turkey in an annual "European conference" of present and future EU members. This conference would hold its first meeting in London next February shortly before accession talks begin, thereby making it clear to those not yet included in such discussions that they are "pre-ins" rather than "outs".

The decision has to be taken at next month's Luxembourg summit. If Turkey is not invited to the proposed conference most Turks will conclude, reasonably enough, that the EU has no serious intention of ever admitting them. In that case they are hardly likely to be helpful or constructive over Cyprus.

The conference has been described as a "family photo" of the wider Europe. If its British hosts want to make a success of it, they must persuade other Europeans to stop treating the Turks as gatecrashers. Instead they should be welcomed and encouraged, like wayward but promising cousins.



Denktash: angered by EU concessions to Greece on Cyprus

·LETTERS TO THE EDITOR·

Number One Southwark Bridge, London SE1 9HL

We are keen to encourage letters from readers around the world. Letters may be faxed to +44 171-873 5938 (please set fax to 'fine'). e.mail: letters.editor@ft.com Published letters are also available on the FT web site, http://www.FT.com Translation may be available for letters written in the main international languages.

Takeovers and a test of fairness

From Mr Roger Lyons.

Sir, Alistair Defriez, the director-general of the Takeover Panel, does not speak for everyone ("Brussels urged to end takeover law proposals", November 3). That the European Union legislation to regulate might contravene the principle of subsidiarity ignores the benefits that such overdue regulation could lend.

The UK's voluntary code leads to more takeovers and mergers in the UK than the rest of the EU. There is no evidence that all of these benefit consumers, shareholders, employees or society in the long term. They do earn the takeover consultancy industry a considerable and growing amount of income – at whose expense?

A statutory EU-wide code would democratise the merger process, and perhaps dealings between bidders and target companies may come under the spotlight, even allowing for proper consultation with employee representatives, providing some test of fairness.

MSF, as a union representing more than 400,000 skilled and professional employees in industries and services significantly affected by mergers, is keen to see European legislation put in place which will protect the rights of those employees – in particular, their right to information and consultation in the run-up to a merger announcement.

The non-statutory code in the UK sets the panel outside and above the law. The UK courts generally refuse to intervene. Consequently, the rights of employees to consultation before mass redundancy announcements, provided for by EU directive, are flagrantly breached, as in the case of Royal Sun Alliance when it announced 5,000 jobs would go on its creation. And the rights to consultation on strategic decisions, provided for in the European Works Council directive, is outrageously ignored, as in the Guinness-GrandMet merger, announced days after the first Guinness EWC meeting.

Mario Monti, the single market commissioner, is seeking fairness: for companies facing unwelcome predators, for consumers, for employees, and for society at large. Roll on the proposed directive on takeover bids.

Roger Lyons,
general secretary,
MSF,
33-37 Moreland Street,
London EC1V 8BB, UK

Tories: no alternative to co-operation

From Mr Jonathan Labrey.

Sir, It is important to point out that pro-Europeans in the Conservative party are not pursuing William Hague in the same vindictive and uncouth manner that "Eurosceptics" attacked John Major. Rather, we are seeking to influence a policy that is fundamentally out of tune with (increasingly) the instincts and interests of the British people.

The two groups of people that Conservatives will depend on for their future as a party capable of government are young people and the business community. Young people are culturally more sophisticated than ever before, and a "mobile" Europe is certainly not unthinkable with the explosion of business and language courses that are on offer – and oversubscribed – in colleges and universities across the country. The business community responds to the potential economic benefits of European co-operation that will result in job creation and increased investment.

Euro-scepticism has never won a general election in the past and it is even less likely to do so in the future. Mr Hague's appeal to the British people will ultimately rest on his ability to unite his party – and the country – around policies that engage the interests of the whole nation.

It is time to say – unequivocally – that in terms of the Conservative party's position on the future of Europe, there is no alternative to active and positive co-operation in the EU. Around that policy, the party has united (and won) for a generation.

Jonathan Labrey,
national organiser,
Conservative Group for Europe,
c/o Conservative Central Office,
32 Smith Square,
Westminster SW1P 3HH, UK

No fresh start in a flawed Pearl of Africa

From Mr Salim Thobani and Mr Azim Amlani.

Sir, We read with great interest the article by Khozem Merchant ("Come on home, we need you", October 18-19) about the renewed welcome for Asian investors in Uganda. There was a similar campaign in 1991 when the government of Uganda, in conjunction with the World Bank, invited us and many other Asians to presentations in London and Kampala about the opportunities to return to business in Uganda.

We were convinced that a new start was to be made and invested considerable funds on the government's assurance that, if any dispute arose, it would be settled impartially by the World Bank's centre for the settlement of investment disputes. We learned, to our cost, that things had not changed. The promised investment incentives were never granted and in 1996 our investment was seized by agents of the government without any recourse to any legal or administrative procedures laid down in the law. We were warned not to return to Uganda. The government has refused to allow our case to go to impartial international settlement by the World Bank or otherwise.

Those attracted by the new campaign would be prudent to ascertain the commitment of Uganda to such impartial international tribunals. Uganda is, indeed, the Pearl of Africa, but president Yoweri Museveni and his ministers have much work to do before that pearl can again appear without disfiguring flaws.

Salim Thobani
and Azim Amlani,
Kingsgate Place,
London NW6 4JH, UK

Euro's effect on the dollar

From Mr Robert Solomon.

Sir, Avinash Persaud's letter (October 31) about the euro's effect on the dollar's reserve status strikes me as both factually and analytically faulty. He claims that "euroland's" economy and exports will be significantly larger than those of the US. The latest issue of the IMF's World Economic Outlook contains a table showing that in 1996 the US economy and its exports were slightly larger than those of the 15 European Union members (excluding intra-EU exports, as Mr Persaud also does).

He also argues that "if the dollar loses its reserve status to the euro" private portfolios would also shift out of dollars. First, the dollar is not going to "lose" its status as a reserve currency. At most, some countries will shift, probably gradually, to the euro. Second, there is no obvious connection between the currency preferences of monetary authorities, which are motivated partly by political considerations, and the decisions of private investors and institutions as to where they hold assets.

Robert Solomon,
8502 W. Howell Road,
Bethesda,
Maryland 20817, US

UK certain to be sidelined

From Mr D. A. A. Fagandini.

Sir, The uncertainty that the UK chancellor ended in his Emu statement was that regarding a British vote of confidence in continental Europe's ability to manage a euro capable of withstanding the political pressures the Treasury expects to plague its early years.

Taken with the decision to provide only encouragement from the sidelines during that time, this will ensure that we will be left there when the hard work to establish the single currency has been done. There may be no De Gaulle to deny us an entry permit whenever we do ask for one, but there most probably will be a formidable European Greenspan uttering "Nein" in Frankfurt.

D. A. A. Fagandini,
6 Alleyn Park,
London SE21 8AE, UK

Personal View · **Gerhard Schröder**

Reforming the German model

Germany has to price itself back into the world market in order to stay ahead

The economic foundations of German society are exposed – as in all countries – to dramatic change. There is intense global competition for capital, goods and services. Labour markets are subject to unprecedented international pressures. Protecting local markets through national policies is virtually impossible.

But provided Germany makes the necessary changes, the so-called "German model" – which combines a productive economy with an integrated and peaceful society – can maintain its superiority over other successful systems. The key to the future is to encourage and support entrepreneurial spirit and practice everywhere in Germany. My aim is to improve and speed up the capacity of our economy to adapt and innovate. That ambition is at the heart of any modernisation strategy.

Significant parts of the German economy have been lagging behind international competitors. The only way to make use of new opportunities is to give up past practices. We need courage and readiness to take risks. We also need a credible political leadership that is not exhausted by muddling through with old policies.

Europe has a vital part in my policies for Germany. We want Europe to realise its potential as the world's largest and most successful marketplace. It is no coincidence that social democracy has again become Europe's driving political force. Too many people have suffered from the inability of neo-conservative dogma to produce a society that is efficient and at peace with itself.

Democratic politicians must not abdicate before market forces, blind to the social consequences. Down that road lies inequality and social polarisation, as well as a threat to our democracy and prosperity.

As far as monetary union is concerned, the single currency must be introduced, at the right time after the agreed convergence criteria have been fulfilled. This must form a step towards a genuine economic and political union. Monetary union must also be part of a European offensive to create jobs.

In Germany, our solid industrial base and our capacity for social consensus are enormous benefits. But there are undoubted shortcomings. More than 4.5m people out of work, together with their families, are paying the price of insufficient economic flexibility.

With market-oriented incentives we can bring about a genuine renaissance of the social market economy that will stimulate productivity and use resources more effectively. Germany can draw on immense resources, not least its citizens' high level of training and innovative talent.

> I want to finance work, not unemployment. An acceptable minimum income can go hand-in-hand with a fall in unemployment

These fundamental strengths will be at risk unless radical measures are taken to reform Germany's economic and social structures. But we cannot make the necessary adjustments purely by reducing employment and social standards. In the US, and in Britain too, we see social erosion – hardly the right way to bring about a modern economy and integrated society.

For all these reasons we must find a new framework to allow the German labour market to function better. People will demonstrate mobility and flexibility only if they are sure that their basic living conditions are not under threat. We must give them a reliable set of parameters to enable them to take on new risks.

Lowering labour costs forms one of the main methods of making entrepreneurial activity attractive again and at improving Germany's position as a place for investment. Labour has been made too costly. I favour lowering labour costs, particularly for less skilled people at the bottom end of the pay scale. My aim is to accomplish this by cuts in income tax and by shifting part of the financing of social security away from companies and workers and towards general taxation.

I want to finance work, not unemployment. A socially acceptable minimum income can go hand-in-hand with a fall in unemployment. For a transition period, my goal is to channel some funds used for unemployment assistance into wage and income subsidies. Flexible methods are necessary to price people into jobs. Where they take on unemployed people and add to existing employment, businesses will earn the right to grants.

Along with tax breaks favouring low-wage groups and part-time work, I want to bring in a negative income tax to provide transitional income payments up to the level needed for family subsistence. Similar methods are needed to adapt working time, for instance for those nearing pensionable age. The cost of subsidies can be offset by using existing legislation to cut benefit claimant abuse. Over the medium term, these measures can be expected to produce a fall in the jobless total of around 2m.

As a further step towards economic revival, taxes on entrepreneurial activity must be cut, and flows of capital towards business should be stimulated through tax incentives.

At the same time new businesses and small companies are frequently starved of the capital they need. All too often, young businesses look to foreign sources of finance, causing migration of knowhow and jobs. We need a proper market for risk and equity capital.

In 15 years, only half those employed in the German economy will benefit from a secure full-time job. As far as retirement benefits are concerned, employees must continue to benefit from a basic state pension, but they must also rely more on their own resources by investing in the capital stock of the economy.

Radical reform across all sections of economy and society is the only way of safeguarding Germany's accomplishments. Fear of change will set us back. I prefer to embrace change and go forward.

The author is prime minister of Lower Saxony and economic policy spokesman of Germany's Social Democratic party

FINANCIAL TIMES

Number One Southwark Bridge, London SE1 9HL
Tel: +44 171-873 3000 Telex: 922186 Fax: +44 171-407 5700

Wednesday November 5 1997

Mr Trichet and the ECB

The French decision to nominate a Frenchman to be the first head of the European Central Bank was hardly a surprise. The name of the nominee, Jean-Claude Trichet, head of the Banque de France, was just a little less predictable, given his past clashes with President Jacques Chirac. But that an action is predictable does not make it desirable.

Mr Trichet is being nominated to replace the Dutchman, Wim Duisenberg, head of the European Monetary Institute, the precursor of the ECB. Having lost to the Germans in all the other arguments over economic and monetary union, French *amour propre* demands a victory. That means putting a Frenchman at the top.

Mr Trichet is a qualified candidate. As architect of the *franc fort* policy of the past one and a half decades, his orthodoxy is impeccable. But so is Mr Duisenberg's. Mr Trichet has the technical skills. But so does Mr Duisenberg. Mr Trichet might lack the political arts needed to convey the ECB's message to doubtful Europeans. But so, too, might Mr Duisenberg.

The fundamental issue, however, is not whether Mr Trichet is a suitable candidate, but whether it is sensible to put him in the job. For him to achieve the position as the result of a French power play or a bilateral deal between Germany and France could be bad, not just for the European Central Bank, but for Europe as a whole.

The ECB is, after all, a European institution. It exists to serve wider European interests, not those of two countries.

One of the advantages of a candidate from a small country is that his ability to serve the wider interest is credible, because the alternative, of serving his own country's, is obviously not. This general presumption is reinforced, in this case, by the importance France attaches to having a Frenchman in the position. A natural assumption is that the candidate is expected to do what Paris wants. This does not need to be true for it to damage the ECB's credibility. The damage could be particularly severe in Germany itself, where euroscepticism is rife.

No less harmful is the notion that Germany might accept Mr Trichet in bilateral horse trading. Such an arrangement to change an apparently agreed candidate by the EU's two most important countries would blight the institution's legitimacy everywhere else.

The interests of Europe demand that the head of the ECB be acceptable to the largest possible number of countries and be appointed in the most open possible manner. In this light, a belated attempt by France to persuade Germany to ditch Mr Duisenberg for Mr Trichet could seriously damage the credibility and legitimacy of the nascent institution.

Debt roulette

The collapse in the prices of emerging market bonds since the middle of last month has left investors and investment banks nursing big losses. A hitherto profitable game has gone badly wrong.

Earnings in Wall Street and the City of London have been buoyed by holding speculative bonds and letting prices rise. Participants knew they were carrying too much risk, but since competitors were also doing it they kept on.

Both banks and investors around the world have also been borrowing cheap to lend at much higher rates in different currencies. This risky habit, which investment banks call proprietary trading, has been particularly marked in Russia's volatile local currency markets. Investors from South Korea, for example, are said by traders to have been boosting lacklustre profits by investing in Russia. Investors in Latin America have been borrowing in yen to invest in Brazilian and Mexican local currency markets.

The flight to quality in emerging market bonds in the international markets over the last two weeks is thus just the tip of the iceberg. The reason that the risk spreads have risen so dramatically is that the marked change in market conditions has raised new questions about the ability of some borrowers to meet future commitments. Such questions, in the minds of nervy, speculative investors, tend to overwhelm longer-term improvements in credit.

The question for investors now is whether the market collapse was a signal for a new round of the old game of leverage and rising bond prices to begin again from the new, lower base; or whether there has been a fundamental change in the market and new strategies are demanded.

Clearly, the bull market in bonds was driven by abundant global liquidity. There is no strong evidence, apart from the modest rise in US and German interest rates, that this picture has radically changed. If this is the main factor, then emerging market bond prices may soon begin to climb.

However, the full extent of the damage done to investors and investment banks by the bond price collapse is as yet unknown. Large amounts of maturing debt, much of it in local currencies, is due to be rolled over in the months ahead. Investors' willingness – or reluctance – to do this will reveal how serious the damage has been to the creditworthiness of emerging market borrowers. In the meantime, the lesson for governments and other borrowers who are over-dependent on volatile international investors is simple: if you can, kick the habit.

Curtain call

Chris Smith, the UK's minister of culture, media and sport descended with a clash of thunder on Monday to propose a resolution of the turbulent affairs of London's opera companies.

The Royal Opera House, now running headlong towards insolvency, has been leaderless throughout the summer. It grossly mismanaged the first part of its exile while its building is being refurbished.

Meanwhile, the English National Opera (more nearly the "people's opera") is also leaderless and in debt. And it wants more cash to revamp its splendid but dilapidated home, the London Coliseum. After Dennis Marks, the ENO's general director, resigned suddenly in September the company's plans to settle its debts were left in limbo.

Something must be done. Mr Smith's idea, which seems to have sprung fully formed from the back of an envelope, is to put the two companies together under one roof in the opera house building. Management of artistic companies would be separated from management of the premises.

Mr Smith has wisely given Sir Richard Eyre, former artistic director of the Royal National Theatre, a fairly open brief as chairman of an inquiry into this operatic mess. The inquiry is bound to consider a long overdue reform of the royal opera. And there is certainly a case to be examined for separating the business and artistic management.

It would be a pity, however, if the ENO were sucked into the maelstrom created by the royal opera's mismanagement and so lost its distinctive vision: accessible modern repertory. After losing its way in recent years, the company has shown signs of being rejuvenated under a new music director, Paul Daniel.

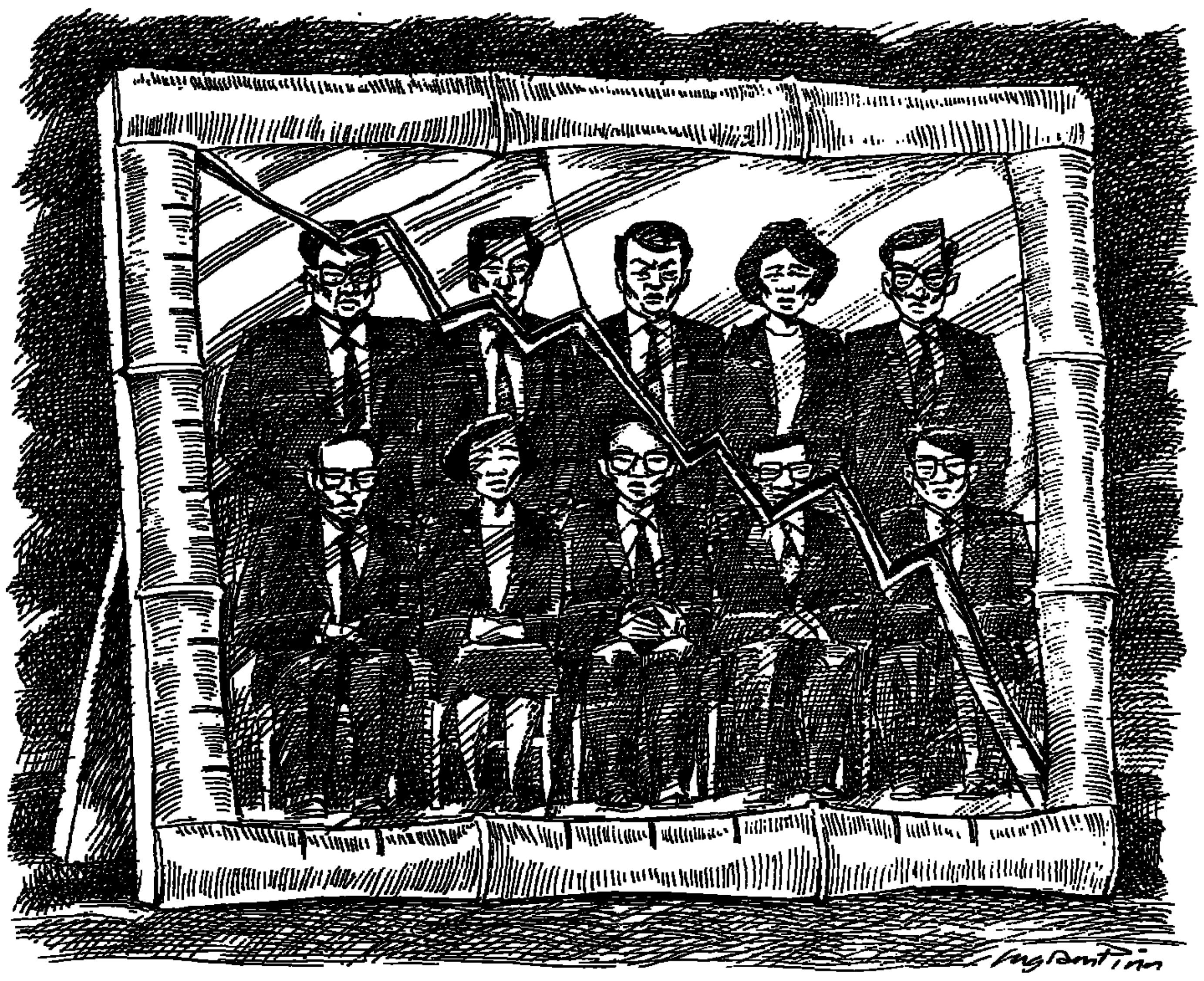
If the two opera companies shared one building, there might be strong pressures before long to merge them, starting no doubt with the two large orchestras. The alternative would be a much increased touring programme. But taking opera to the regions is expensive and logistically difficult, especially if international stars are involved.

Sir Richard, therefore, faces a daunting task in his search for a solution which will preserve the ENO's distinctive style and yet make radical improvements in the economics and management of big opera.

A big shake-up may well be needed. But the worst outcome would be a real life version of Ariadne auf Naxos, the opera in which the great man lost patience with two competing companies of entertainers and simply ordered them to play alternate scenes, comedy and tragedy.

Empires can strike back

Turmoil in Asian markets may act as a wake-up call to overseas Chinese business groups, say **John Ridding** and **James Kynge**



The currency crises and economic upheavals that have buffeted south-east Asia since July have debunked the myth of an Asian exception. "There was an amazing mindset that Asia was not subject to the same rules," says Paul Krugman, professor of economics at MIT.

If Asia's "miracle" is vulnerable to economic shocks, what of its individual corporations? Is it also time to write off the big companies spawned by rapid growth and, in particular, the empires run by overseas Chinese families that dominate business in the region?

Companies were already being confronted with challenges to their strategies and success because of deregulation and problems of succession. The regional reversal will increase such corporate pressures: their most immediate worries now are the storms of devaluation, deteriorating regional growth and tumbling stock markets.

"For the most part, overseas Chinese companies are not competitive in a globalised world," says Ronnie Chan, the second-generation chairman of Hang Lung Development, a Hong Kong property developer.

Many companies have been hit during the economic turmoil, including Malaysia's MBf group, the rapidly growing financial services company that suffered a two-day run on its branches by depositors. With its exposure to Malaysia's troubled real estate sector, investment analysts believe the group will be forced to curb its overseas expansion plans, such as its banking and credit card operations in Thailand and Indonesia.

Great Eagle, the Hong Kong developer, was forced to cancel a HK$1.8bn ($234m) rights issue last month because of the stockmarket fall. First Pacific, the conglomerate controlled by Indonesia's Salim group, has warned that regional problems will hurt 1997 profits, largely because of provisions against currency losses.

"There is the short-term uncertainty, then there are more enduring problems from the crisis," says the chief executive of one overseas Chinese trading group. Among the most serious concerns, he cites tighter bank credit and weak stock markets, which will restrict expansion plans; depressed property sectors, the foundation of many regional business groups; and reduced demand in home markets. "We have always built out from domestic bastions," he says. "Now they are being shaken."

Beyond these sudden shakes lie enduring weaknesses. "Most owner-managed companies, particularly in Asia, are like thunderstorms," says Edward Kangas, chairman of Deloitte Touche Tohmatsu, the accountants. "They build quickly but perish as fast."

Family-based ownership and control limits management expertise and presents succession difficulties. Since patriarchs and their relations are often reluctant to loosen their grip, it also obstructs expansion.

"There is very little delegation of responsibility, even to the sons," says Mr Chan at Hang Lung. "If the old man says go right, you go right."

Such weaknesses have traditionally been offset by the advantages of the overseas Chinese business groups. "Strong personal contacts and short lines of command allow companies to act fast and seize opportunities," says Cheng Wai-keung, chairman of Wing Tai, the Singapore-based property and textiles group.

In industries from property to shipping, that remains a strength. But shifts in the world economy are exposing the weaknesses of many Asian groups. "The value added is increasingly in technology and in brands," says one Singapore-based management consultant. "And I can count on the fingers of one hand, the number of south-east Asian businesses that are strong in those areas." While not every company has to be a global player, he adds, home bases are threatened by deregulation and liberalisation which has increased competition and undermined local franchises.

For Mr Chan, the implications are bleak. "I do question the viability of a lot of these family-owned businesses," he says. "Talk of the Asian century is a joke. If Asia doesn't have strong, defendable companies, how can it be a strong region?"

The answer lies in adjustments being made by many overseas Chinese groups. "The good old days are gone, and competition has intensified," says Mr Cheng at Wing Tai. "But many overseas Chinese groups are adapting, and this crisis is a wake-up call."

Among the most important shifts is the development of professional management. "There is a new generation of MBA sons and they are prepared to delegate," says Victor Fung, chairman of Li & Fung, one of Hong Kong's oldest trading groups. His company was one of the first to tackle the web of family ownership and management, launching a complex restructuring followed by a management buyout in 1989.

Even the biggest taipans who retain management control and ownership give lieutenants room to manoeuvre. "Li Ka-shing [who controls two of Hong Kong's biggest companies] sets the strategic direction, but he lets top executives get on with it," says one former group executive. He cites the free hand given to John Meredith at Hutchison International Terminals, Mr Li's ports division.

Mr Li's ports, which span from Felixstowe in the UK to Shanghai and Panama, also show that Asian business leaders can build multinationals. Critics argue such expansion is a rare success among several failures, such as Rabbit, the UK telecommunications operation. But more cases of multinational overseas Chinese businesses are emerging.

"A lot of Hong Kong and south-east Asian companies are pioneers in distribution technology," says Mr Fung, referring to the process of co-ordinating the production and supply of consumer products. "An item which costs a dollar when it leaves the factory ends up four dollars at retail. If you work on the manufacturing end of the equation you can bang your head against the wall trying to shave off 15 cents. We focus on the 'soft' three dollars."

Many former manufacturing groups are moving down a similar path. About 40 per cent of Hong Kong's 300,000 small and medium-sized companies have operations in more than two locations, sourcing and supplying for consumer goods companies. Small distribution multinationals have also emerged in Taiwan and the Asean economies.

Devaluation will give such entrepreneurs a sharper edge in international markets. But whether they succeed depends on continued evolution.

For the bigger overseas Chinese companies, the conglomerates that spread from property to finance and infrastructure, turmoil at home may be offset by openings in China. Mr Cheng at Wing Tai predicts that robust growth on the mainland, combined with Beijing's shift towards privatisation, will lead to a new wave of activity in China by overseas Chinese groups.

These businesses still hold advantages in the mainland market. "New World from Hong Kong or Robert Kuok's Kerry Group can repeat in China what they have been doing across south-east Asia," says the managing director of one Hong Kong investment bank. "It provides a whole new canvas for them, where the old networks and methods still apply."

Here, too, strategies require adjustment. "It could be a mistake to assume that overseas Chinese will still have the inside edge in China," says the Hong Kong-based Political & Economic Risk Consultancy. Apart from western multinationals moving into the Chinese market, the consultancy cites the rise of China's own state-owned conglomerates as potential rivals. C.P. Pokphand, for instance, the Thai-based conglomerate, has run into tough competition in its mainland motorcycle business as local rivals have increased production.

Part of the response appears to be a wave of new alliances between the overseas Chinese and mainland business groups. In June, China Resources, the business arm of China's Ministry of Foreign Trade and Economic Co-operation, paid HK$580m for an 8 per cent stake in a financial services arm of Indonesia's Lippo Group. That division then sold a stake to Beijing Enterprises, the commercial arm of the capital's municipal government.

Li Ka-shing and other Hong Kong tycoons have taken stakes in mainland companies, such as CNAC, the commercial arm of China's aviation regulator. Even some Taiwanese businesses are pursuing a similar path. Citic Beijing, China's flagship investment vehicle, recently became a shareholder in KG Investments, a Hong Kong-based bank founded by Taiwan's Koo family.

"Overseas Chinese and mainland Chinese. That is the next phase in the Asian business networks," says the managing director of an overseas Chinese bank. Like macroeconomic reforms, he believes, this process may be accelerated by the regional downturn.

Along with management reforms and the new breed of distribution companies, expansion in mainland China could help guarantee survival of the overseas Chinese empires. It may even herald a new and stronger phase in their expansion.

OBSERVER

Regal Robertson

■ British defence secretary George Robertson, recently heard complaining he's the forgotten man of politics, yesterday got his big chance to make amends. Playing the British monarch, no less.

In Moscow for a bear hug with Russian military types, Robertson assumed the role of Queen Elizabeth to bestow an honorary knighthood on Antonina Koneva, 74-year-old widow of late Red Army marshal Ivan Konev.

During a ceremony in the gilded halls of the British Embassy, just across the river from the Kremlin, Konev became only the third Soviet war hero to be honoured by Britain for exploits in the second world war.

The marshal died in 1973, but 30 years earlier he had commanded the steppe front at the battle of Kursk – which put paid to Hitler's eastern offensive in what the Russians call "the Great Patriotic War". Konev then drove the Germans back to the Vistula – and eventually shared the honour of capturing Berlin with Marshal Zhukov.

While Zhukov was honoured by King George VI, Konev had to make do with posthumous recognition because the cold war got in the way. "I think he would be really satisfied and very touched," says his proud widow.

Articulated

■ Pete Camarata clearly likes the whiff of battle and life on the barricades. The US Teamsters Union organiser is in Europe this week and plans to make time to seek out striking French truckers and give his support.

Camarata, who spent 28 years behind the wheel of a truck before devoting his life to union matters, has been telling like-minded lefties about this summer's dust-up between the Teamsters and the UPS delivery service. The dispute is already being hailed in international socialist circles as a proud victory which stands as a beacon for the old way of resolving industrial problems. But Camarata, sounding only ever-so-slightly disappointed, reckons there's not much for him to teach the French. "They look pretty well organised," says the Detroit-born trucker who's not afraid to mix it.

Mortified

■ Nice steady business, burying people. No shortage of customers (though space is another matter) and decades of tradition to ensure the ceremonial barely changes when it comes to saying goodbye.

Nothing much, that is, until the Americans turn up to say differently. Hence the dirt flying in the British funeral market now some of the biggest North American players have crossed the Atlantic to try and take business from the army of independent undertakers.

A campaign for fair funeral practices has been busy raising cash to see off a threat to the traditional British way of despatch by stopping "the commercial onslaught" of foreign-owned conglomerates who say an industry shake-up is long overdue.

There's particular alarm at the increasing strength of US funeral specialist Service Corporation International(SCI) – "Serving the World one Family at a Time" – which arrived three years ago; other foreign players include the Canadian Loewen Group and American specialist Stewart Enterprises. "Unfair practices" from the newcomers are alleged to include aggressive marketing and soliciting for business at nursing homes and hospitals.

But now SCI, which undertook 500,000 funerals worldwide last year, is trying to take the high ground, drawing up regulatory proposals which could involve a funeral industry commission to register and police undertakers.

In the meantime, SCI has broken new ground by launching a television campaign to persuade the Brits to embrace the American way of death. The company reckons the death of Princess Diana has set minds racing about the best way to go. Now, the largest UK undertaker is promising a television fight-back in the new year. Looks like a fight to the death.

Vintage

■ Edmond de Rothschild, the wealthy head of the Swiss branch of the finance dynasty who died on Monday, may have been best known for his banking interests. After fleeing his native Paris with his father in 1940 during the Vichy regime, he built up extensive private banking and other investment interests from the luxurious Chateau de Pregny near Geneva. He remained a Swiss resident until his death.

But Observer hears he chose as his final resting place a site symbolic of his more recent diversification into the wine-growing business.

He let it be known that he wants to return to both his Gallic and Jewish roots, opting for burial at Chateau Clarke, a large and well run *cru bourgeois* in Bordeaux that he bought in 1972; it's since become a leading producer of kosher wine.

The Financial Times

100 years ago

American Markets
The market in Wall Street is still depressed. In the forenoon, rumours of the dangerous illness of President Havemeyer led to a bear drive on American Sugar Refining, but subsequently a statement that he was doing well enabled the stock to recover somewhat. Rails were steady during the morning. At noon, there was a general bear drive, which established the lowest quotations reached recently; but there was a distinct tendency upwards before the end of this session, and though the list showed on balance a decline nearly throughout, the changes were mainly fractional.

50 years ago

London Market For Tea?
The advantages of re-establishing London as a market for Indian and Ceylon tea were stressed by Mr H. Eric Miller, chairman of Harrisons and Crosfield, at the meeting yesterday. He said there was no doubt that, in the foreseeable future, the best place to market the vast quantities of tea consumed in the United Kingdom, was London, where blenders could pick and choose in open competition, as they used to, the qualities they need in order to make up their standard blends.

FINANCIAL TIMES
Wednesday November 5 1997

US looks at 'carrot and stick' approach to trade with China

By Nancy Dunne in Washington

The Republican-led US Congress yesterday began to consider legislation that could end the yearly congressional battle over China's trade status with the introduction of a "carrot and stick" approach to Beijing.

The approach is intended to nudge China to enter the World Trade Organisation on terms commercially acceptable to the US and European Union, or the US would impose new tariffs on Chinese goods.

The legislation, introduced by Congressmen Doug Bereuter of Nebraska and Thomas Ewing of Illinois, is an attempt to deal with the US trade deficit with China, which is $31bn so far this year. The proposal has drawn support from members of both parties in Congress.

The legislation recognises that the annual battle over China's Most Favoured Nation trading status does little but hurt the US business community, when outraged Chinese officials give contracts to competitors in Europe and Japan.

Congress needs a two-thirds vote to overturn a US president's decision to favour MFN – and that did not happen even in the aftermath of Tiananmen Square.

"China's leaders ignore Congress's annual threat to revoke MFN because they know we will not impose such Draconian tariffs on US imports," said Mr Bereuter. Without MFN tariffs would average 44 per cent.

The legislation would give the president six months to negotiate China's accession to the WTO. If at that point he did not feel China was offering acceptable market openings, he would have to announce tariff increases. Tariffs would be imposed six months later allowing time for negotiations.

The administration has sought accession to the WTO for China in the hope that the US would make gains once Beijing had to abide by international trade rules. However, congressmen said yesterday that China's offers have been "woefully inadequate" in the 20 "working party" meetings held in Geneva.

The legislation, said Mr Bereuter, would require China to make an acceptable offer to join the WTO or face 4-7 per cent tariffs, which were in effect before the conclusion of the Uruguay Round of world trade talks. If it joined the global trade group it would immediately get MFN status which would give it the same tariff levels as other members.

Legislation to give China permanent MFN was introduced in the Senate by Bill Roth, chairman of the Senate finance committee, during the visit last week of Jiang Zemin, China's president, to Washington.

However, Congress is unlikely to grant this favour, in view of the trade deficit, without getting assurances that China's market will open sooner rather than later.

In a hearing yesterday of the international trade sub-committee, objections raised to the proposal centred on doubts that the administration could be counted on to act against China.

Thai markets soar as premier quits

By Ted Bardacke in Bangkok

Thailand's financial markets soared yesterday, welcoming the announcement by Chavalit Yongchaiyudh that his resignation as prime minister would be effective from midnight tomorrow.

Investors shrugged off failed attempts by the country's main political parties to reach agreement on a new prime minister or a new coalition.

Analysts said a delay increased chances that the opposition Democrat party, backed by several prominent and popular economists and bankers, would take charge of the government later in the week.

The baht rose 6.1 per cent against the dollar to close at Bt38.60 and the stock market rose 6.9 per cent.

"Thai politics had been a big negative for the market. Now it's only a small negative," said James Landi, vice-president of broker Vickers Ballas.

Analysts said the markets were also heartened by yesterday's cabinet decision to make an additional Bt29bn ($708m) in budget cuts and raise revenue by Bt11bn by increasing vehicle excise taxes and improving tax collection. Together with Bt4bn in increased contributions from state enterprises, the move should help Thailand meet International Monetary Fund fiscal targets.

But confusion remained over who would implement the measures. Prem Tinsulanonda, a former prime minister and privy councillor, did not respond to an offer to lead the current six-party coalition.

Chatichai Choonhavan, leader of Chart Pattana, the coalition's second largest party, said he did not want the job, as did a number of other senior figures who were approached, including Thaksin Shinawatra, the deputy prime minister and telecommunications tycoon. But coalition leaders tried to remain united.

"No one wants to be out of power but no one wants to take ultimate responsibility and be prime minister," said an Asian diplomat.

Leaders of Chart Pattana have entered negotiations with the Democrat party, which is demanding that Chuan Leekpai, its leader, be given the premiership and control of most of the cabinet.

Democrat party officials said they were in no rush to take over, preferring to let government parties come to them with offers when they were unable to find a leader.

"We have a strong enough team to halt the slide in the economy. We're not trying to duck it," said Akapol Sorasuchart, a Democrat MP. "But we have to be sure we can conduct our economic policies."

Telecom sell-off, Page 6
Currencies, Page 23
World stocks, Page 34

Yahoo IPO storms Japanese markets

Continued from Page 1

services company, which holds 58 per cent.

Takehiro Kanazawa, an analyst at Yamaichi Research Institute, said it was difficult to evaluate Yahoo Japan because it was only established on January 31 1996, and has reported only one full fiscal year of earnings. Assuming the company's forecast earnings per share to be accurate, the shares should be trading near Y400,000, he said.

Yahoo Japan provides Japanese data search services free of charge and derives the bulk of its revenues from advertising. It forecasts recurring profits of Y140m in the year to March, on sales of Y1.2bn. Net profits are forecast at Y70m against Y23m last year.

Traffic on its site has grown from 1.1m daily page views a year ago to 4.46m in September. The company expects internet services in Japan to catch up with the pace of growth seen in the US within two years.

The listing of Yahoo Japan will not have a significant impact on Softbank, which is struggling against negative sentiment due in part to its high level of debt.

Krupp to link with Thyssen

Continued from Page 1

Rhine Westphalia, the German state in which both companies are based.

However, it was quickly followed by talks on merging the two companies' flat steel interests. These were completed at the beginning of September when Thyssen Krupp Stahl was established, with Thyssen the dominant partner with 60 per cent of the equity.

The two group's stainless steel interests had been merged earlier in Krupp Thyssen Nirosta, in which Krupp has 60 per cent. A full merger has had local political and trade union backing.

The chief executive of the new group is expected to be chosen at the end of this month with Mr Cromme and Dieter Vogel, chief executive of Thyssen, as the two candidates. Terms of the merger will have to await a formal valuation of the two companies.

Jospin told to get tough on truck strikers

Continued from Page 1

Communist transport minister, is due to begin another attempt today to get all the parties in the conflict talking around a table.

Yesterday the largest association of hauliers, UFT, which had accepted an invitation to meet the minister, began to drag its heels. Only late in the day did it agree to a meeting today. Unostra, the federation of the small haulage companies, warned its colleagues among the large haulage groups its members could not improve on the offer they endorsed on Saturday.

This envisaged an immediate 5 per cent pay increase and about 20 per cent over three years. However, the UFT and its umbrella federation, FNTR, rejected this deal even before it was concluded last week and walked out of the talks. For their part, the drivers' unions have hardened their positions – at least in public – in response to the militant mood among members, who have indicated they will not pull back until they extract more concessions. Among these are premium payments still owed from the 1996 strike.

Additional reporting by David White in Madrid and Gordon Cramb in Amsterdam.

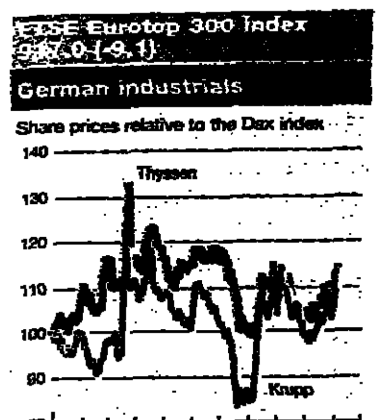
THE LEX COLUMN

Together at last

Although lacking the drama of Krupp's aborted hostile bid for Thyssen, yesterday's merger agreement signals a change of pace in the restructuring of corporate Germany. By creating Germany's sixth largest industrial company by sales, this merger will necessitate others as competitors attempt to match Krupp/Thyssen's global reach and market power. With their steel activities already in joint ventures, the real impact will be felt in the material handling, machine tool and automotive sectors.

The deal will also provide the template for future ones: after the ignominious retreat of Gerhard Cromme, Krupp's chief executive, in March it is clear that hostile bids are close to *verboten*. This is especially true of those that have not been approved by unions and politicians. This now amicable marriage will serve as a showcase for the supposedly rancour-free German method of merger accounting: the exchange ratio of the merging companies' shares is determined by independent auditors based on forecast cashflows.

There are, however, no obvious corporatist solutions to the question of who will be boss. Mr Cromme, who successfully prosecuted the merger between Krupp and Hoesch, is preferable to Dieter Vogel, Thyssen's cautious chief executive, but may yet pay the price for his earlier audacity. And with a deserved reputation as the most aggressive rationaliser in Germany, Mr Cromme would almost certainly extract more than the conservative DM450m ($255.6m) of savings the companies have so far projected. But then he may find the unions have tied his hands.



US media

A decade of restructuring has turned the North American media industry into an oligopoly. Between them, Walt Disney, Time Warner, News Corporation, Seagram and Viacom control much of the production and distribution of news and entertainment. And following a flurry of deals, all five are now largely strategically complete.

To date, investors have had little cause to cheer. Overpriced acquisitions, too much debt and poor management have produced horrible share performances. Even Disney has barely kept pace with the US stock market over the past three years. The others have underperformed by between 25 and 60 per cent, with Viacom at the rear. Perhaps it is time for a reappraisal. All the companies have turned their faces against further big purchases. And with much of the heavy investment behind them, they should start to generate enough cash internally to make inroads into their borrowings and begin rewarding investors. Encouragingly, Time Warner, Disney and News Corp have all said recently that they would pay down more debt and start (or step up) repurchasing shares. The positive rerating of cable companies this year, which has helped Time Warner's shares, shows how these industries can swing in and out of fashion. If the media groups can succeed in squeezing more out of their assets by milking their brands and exploiting the benefits of owning both distribution and content, they too will deserve another look.

BZW

Is it a disaster that Barclays has failed to persuade Credit Suisse First Boston to take on all BZW's businesses? Well, no and yes. In one sense, excluding BZW's Australia, Asia Pacific and equity derivatives businesses from the sale is no big problem. In Australia in particular, BZW's business is strong. Very likely, other buyers can be found without too much difficulty; arguably, splitting the BZW businesses between different buyers might even make sense.

But look at it another way and CSFB's decision merely underlines the awfulness of Barclays' negotiating position. As sole bidder left in the frame, CSFB is just exercising its natural freedom to pick and choose. It will doubtless continue to press its advantage as the "exclusive discussions" proceed. The price, when it finally emerges, will surely be a depressing one.

One can debate how far Barclays' handling of the sale is to blame. Part, probably, is down to the decision to go for such a public auction process. But the more important lesson is that a second-rank investment banking business is considerably harder to sell than most thought. Plainly, that reflects horribly on the huge investment the UK clearing banks have lovingly poured into these operations. National Westminster, certainly, cannot afford to feel smug. What price NatWest Markets?

Marks and Spencer

After years of vacillation, Marks and Spencer is finally pushing the boat out. Whether it be store size, product range or geography, the message is of relentless expansion. The timing is opportunistic – assets in continental Europe look cheap right now. But it is also a case of *making* a virtue of necessity: single digit earnings growth, despite strong demand, is sub-standard for a premier retailer. Yet, as the disappointing results of the food division show, domestic competition is too stiff for more of the same to suffice as a strategic response.

The global dimension is the most interesting. Global retailers are in conspicuously short supply. And there is certainly no precedent for a high volume, focused department store succeeding. Yet M&S's confidence in going down this route is not misplaced. It has a powerful brand, with proven international potential, and the further advantage of a distinctive format. The patient acquisition of superior properties has been another necessary ingredient of success.

Patience, of course, is something investors will now be called on to display. The price of a step-change in ambition will be a higher risk profile, and another year or two of subdued earnings growth. Only then will the rewards start coming through. It is a trade-off worth making, and will underpin M&S's premium reputation. But while long-term shareholders should be reassured, a 30 per cent premium to the market makes it look an expensive time to be buying.

Additional Lex on Cookson, Page 21

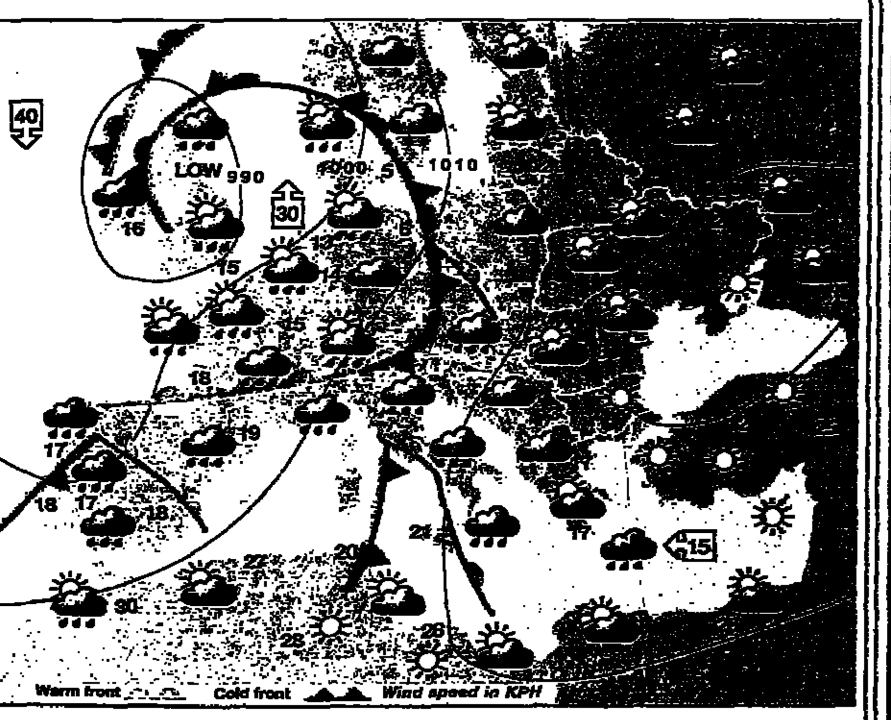
FT WEATHER GUIDE

Europe today

Spain and Portugal will have heavy rain with the risk of local flooding, although the extreme east of Spain may stay dry. The central Mediterranean will be unsettled with showers breaking out over Italy and southern Greece. Northern Greece and Turkey will be dry and bright. Eastern Europe will stay mostly dry as high pressure continues to dominate but the north-east will be cold with sub-zero temperatures. Central and north-western Europe will be mainly cloudy with outbreaks of rain. In Scandinavia the rain will be preceded by snow, but conditions will turn milder from the south.

Five-day forecast

Central and western Europe and the western Mediterranean will stay very unsettled with rain or showers. It will also become windy, with northern France at risk from gales over the weekend. Eastern Europe will become milder but more unsettled as high pressure moves eastwards.



TODAY'S TEMPERATURES

Situation at midday. Temperatures maximum for day. Forecasts by PA WeatherCentre

	Maximum Celsius	Beijing	Sun 14	Cardiff	Shower 14	Frankfurt	Cloudy 7	Madrid	Thunder 17	Rangoon	Shower 32
		Belfast	Rain 13	Casablanca	Cloudy 22	Geneva	Shower 9	Majorca	Fair 24	Reykjavik	Shower 4
Abu Dhabi	Sun 31	Belgrade	Fair 9	Chicago	Cloudy 9	Gibraltar	Rain 21	Malta	Fair 23	Rio	Cloudy 30
Accra	Thunder 31	Berlin	Cloudy 5	Cologne	Shower 14	Glasgow	Drzzl 12	Manchester	Shower 14	Rome	Cloudy 21
Algiers	Shower 25	Bermuda	Fair 27	Dakar	Sun 33	Hamburg	Shower 11	Manila	Thunder 30	S. Frsco	Sun 20
Amsterdam	Cloudy 9	Bogota	Thunder 20	Dallas	Sun 21	Helsinki	Fair -1	Melbourne	Fair 22	Seoul	Sun 14
Athens	Fair 17	Bombay	Shower 36	Delhi	Sun 28	Hong Kong	Sun 25	Mexico City	Fair 22	Singapore	Thunder 31
Atlanta	Fair 15	Brussels	Shower 14	Dubai	Sun 32	Honolulu	Sun 29	Miami	Sun 28	Stockholm	Fair 4
B. Aires	Shower 18	Budapest	Fair 9	Dublin	Rain 14	Istanbul	Sun 14	Milan	Rain 11	Strasbourg	Shower 13
B.ham	Shower 14	C.hagen	Shower 5	Dubrovnik	Fair 17	Jakarta	Thunder 33	Montreal	Cloudy 6	Sydney	Shower 20
Bangkok	Thunder 30	Cairo	Sunny 24	Edinburgh	Shower 12	Jersey	Shower 16	Moscow	Fair -1	Tangier	Sun 27
Barcelona	Rain 19	Caracas	Thunder 33	Faro	Rain 18	Johannesburg	Sun 28	Munich	Cloudy 6	Tel Aviv	Thunder 25
						Karachi	Sun 34	Nairobi	Thunder 26	Tokyo	Fair 18
						Kuwait	Shower 29	Naples	Rain 19	Toronto	Fair 8
						L. Angeles	Sun 23	Nassau	Fair 28	Vancouver	Rain 13
						Las Palmas	Sun 26	New York	Fair 12	Venice	Rain 12
						Lima	Rain 23	Nice	Rain 20	Vienna	Cloudy 9
						Lisbon	Rain 18	Nicosia	Sun 24	Warsaw	Cloudy 5
						London	Shower 15	Oslo	Sleet 2	Washington	Fair 13
						Lux.bourg	Shower 14	Paris	Shower 15	Wellington	Cloudy 15
						Lyon	Rain 17	Perth	Shower 28	Winnipeg	Sun 0
						Madeira	Fair 23	Prague	Cloudy 4	Zurich	Fair 10

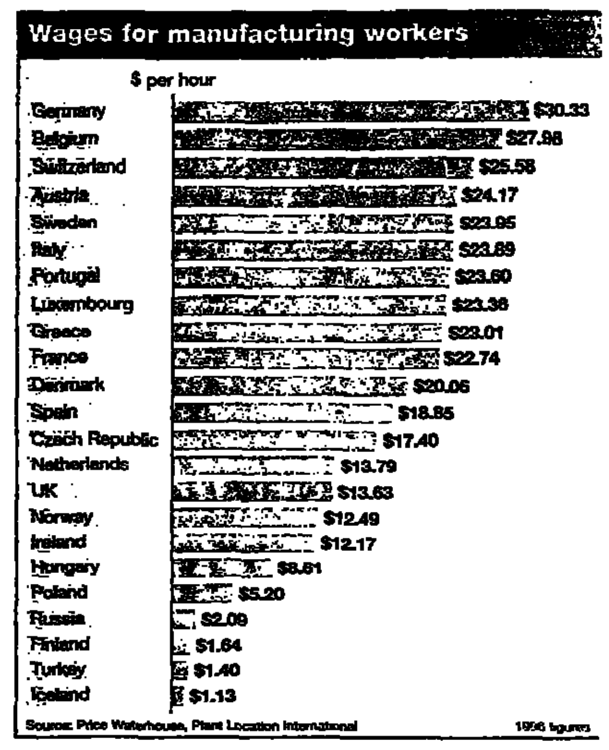
مكرر من الاصل

EUROPEAN BUSINESS LOCATIONS

Inward investors have the pick of the whole continent. **Michael Cassell** reports

Competing to charm new foreign suitors

Shaping Sunderland: throughout Europe, entire communities are now being transformed by inward investment



The European-wide struggle to benefit from the wave of inward investment still rolling across the continent is getting tougher by the day. Throughout the European Union (EU) and, increasingly, in those countries to the east, the critical contribution of inward foreign investment has never been more acutely appreciated and more sought after.

The result is an unprecedented effort at national, regional and local levels to put in place strategies and systems to maximise the full potential of incoming investment funds, whether they are intended for manufacturing, distribution, or the provision of a range of customer and marketing services.

The largest inward investment decisions can provide thousands of badly needed jobs and, of equal importance, revive the fortunes and confidence of entire economic regions. When companies such as America's United Technologies choose to build a new $1bn semi-conductor fabrication factory in Hungary, or South Korean group LG Electronics decides to develop a $3bn semi-conductor plant in south Wales, extensive and profound knock-on effects can be felt in a community.

LG Electronics has recruited more than 6,000 people in the single largest job creation project in the UK, with other jobs also springing up among supplier companies. The scale is such that concerns have been expressed about the impact on the local labour market – there are fears of job poaching.

When a company with the clout and size of Toyota announces that it is looking for a European site to build a new small car but hasn't yet chosen the location, the process of courtship by eager suitors is inevitably frenzied. After Toyota decided to build a plant at Burnaston in the UK, the company made clear that the availability of aid was not a factor. This time, however, it is understood to be planning to take advantage of financial assistance where it is offered.

At the heart of the EU, Brussels attempts to ensure that the levels of prevailing financial help are uniformly applied. Only in the assisted areas is there supposed to be real room for discretion. But there has been mounting concern about the degree of "local interpretation", with tax incentives, in particular, proving more complicated than grant aid to quantify and monitor.

The European Commission has already blocked a number of state aid packages offered to companies in Germany and France and has gone as far as to demand repayment of some funds already made available. Suspicion surrounding some deals arouses interest not only in Brussels but also at the myriad inward investment agencies fighting to win their share of available money.

The rivalry is not confined to cross-border battles. With so many areas and regions in each country anxious to attract outside investment, competition can also be fierce. There are fears within many central governments that such competition is becoming counter-productive. In the UK, the Department of Trade and Industry (DTI) is drafting a "concordat" between England, Scotland and Wales, intended to ensure that financial assistance remains within common UK guidelines.

The move has been made in response to complaints from the English regions that the development agencies in Wales and Scotland are poaching projects and jobs by putting together more attractive aid packages.

Sir Colin Marshall, chairman of British Airways and of London First Centre, the inward investment agency, last month called on the government to introduce a code of practice to stop regions out-bidding each other to win over foreign investors.

Feelings are running high. At the end of last month, David Rowe-Beddoe, chairman of the Welsh Development Agency (WDA), denied suggestions that the WDA had itself over-bid other regional development agencies in its attempt to win inward investment. He emphasised that agreed aid limits were set by the UK and by the commission and that these were scrupulously adhered to.

One suggestion is that the DTI takes responsibility for centrally negotiating large inward investments. But whatever the problems, the UK continues to hold on to the top position in terms of total EU inward investment. Despite some fears that the momentum might be showing signs of slowing down, the nation's performance in attracting the greatest volume and most broadly based foreign business investment remains unbeaten.

Some areas of the UK that may previously have lagged behind in attracting mobile investment are now implementing programmes yielding positive results. The south-east corner of the country, for example, is seen as one region that has not made the most of its beneficial location in respect of mainland Europe.

Initiatives such as Locate in Kent, only started earlier this year, are now taking steps to remedy a previously lacklustre regional performance. Robert Ashmead, Locate in Kent's chief executive, says projections for the number of investments and newly created jobs have already been revised upwards. A job creation target of 1,500 in the first year of operation has been raised to more than 2,000.

The entire framework surrounding the machinery of UK inward investment is now caught up in the government's proposals to establish nine new regional development agencies across England in 1999. The plan is to provide a more coherent approach to economic regional development, in which inward investment plays a critical part. How the existing inward investment agencies fit in to the new strategy remains to be worked through, although there is an expectation that they will become less marketing-driven and more focused on delivery.

The hope is that the national effort will not be disrupted while any new arrangements are put into effect. Recent months have also seen some nervousness among UK-based businesses about the prospect for maintaining UK operations in the event that the country fails to sign up for monetary union. Reported remarks by General Motors' group economist that the company's commitment to the UK would be reduced if the country failed to join Emu were quickly played down. But the incident could be a precursor to more serious doubts among some companies over the UK's continuing attractiveness as a business location if it remains outside Emu.

"Some potential investors are already mentioning Emu as an issue," says David Rees, director of economics at accountants Ernst & Young. "Over time it will have a psychological impact on potential investors and may influence things at the margins of decision-making. But if Europe's main markets are within Emu, then the reality is that business will see more uncertainties operating from outside in terms of costs and returns."

Countries such as the UK will, in any case, have their work cut out fending off competitors for investment from central and eastern Europe. In the last year, there has been a further increase in the number of mobile investment projects heading eastwards. Improving infrastructure, low labour costs and a readiness to demonstrate workforce flexibility are all helping to overcome the lingering suspicions among investors about putting down plant in countries which, until recently, knew little of western business methods.

These countries, too, are beginning to marshal available resources and to mount marketing campaigns to attract investors who, even five years ago, would not have given them a second look. Now locations such as Poland, Hungary and the Czech Republic are notching up significant investments and are on the look-out for more.

The international business community will respond positively if it believes its suitors are being increasingly drawn into a broadening European community which can simultaneously offer a relatively risk-free and competitive base from which to serve its markets.

2 EUROPEAN BUSINESS LOCATIONS

Selection of investors in Europe: January – June 1997

Company	Location	Origin	Exports $m	Activity
Federal Express	France	US	195	New European Super-Hub completing a world-wide network
DEGSA	France	South Korea	400	New factory to produce glass bulbs
Molex GmbH	Germany	Switzerland	100	New textiles logistics centre
Advanced Micro Devices	Germany	US	957	New semiconductor fabrication factory and research centre (start up 1999)
Adam Opel AG	Poland	US	313	New car assembly plant producing family car based on Opel/Vauxhall Astra (start up 1999)
Intel	Ireland	US	1,500	New plant manufacturing microchips
Hewlett Packard	Ireland	US	160	Expansion of plant manufacturing inject cartridges for printers
Seagate Technology	Ireland	US	800	New factory manufacturing disk drives
Daewoo Romania	Romania	South Korea	850	New car production lines producing Espero, Cielo and Tico safeguarding jobs
Celylan	Turkey	Turkey/Japan/US	1,000	Plans to set up a joint integrated textile plant
Kia	Turkey	Japan/South Korea/Turkey	180	New car production plant
Rover Group	UK	Germany	640	New hi-tech engine plant
Jaguar	UK	US	640	Expansion at car plant to produce new model X200
LG Electronics	UK	South Korea	3,300	New wafer fabrication unit producing 8 and 12 inch fabs (commenced construction)
Hyundai	UK	South Korea	3,800	New microchip factory
Nissan	UK	Japan	322	Expansion of existing car manufacturing plant
Seagate Technology	UK	US	160	Expansion in production of computer disk drives
Short Brothers Aerospace	UK	Canada	283	Two new aircraft manufacturing programmes over the next 5 years (Canadair regional jet and Havilland Dash 8)
Hualon Corp	UK	Taiwan	261	New textile production unit
Toyota	UK	Japan	330	Production of latest Corolla car at existing sole European plant

Source: Ernst & Young

SHARED SERVICE CENTRES • by Michael Cassell

The company that shares wins

The centralisation of support services can cut costs and improve efficiency

Perhaps the most striking response by business to the need to make support activities more efficient has been the recent explosion in the growth of pan-European shared service centres.

Location specialists are unanimous in pointing out the rapid spread of so-called SSCs as companies seek to reduce their cost bases through economies of scale, improve their customer service performance and achieve the flexibility required to adapt to changing market conditions.

A wide and growing range of traditionally back-office activities intended to serve disparate business units and locations is being transferred to the shared service centre. These activities can include everything from telemarketing and billing to purchasing and general accounting and from fleet management to legal and audit services. Increasingly, companies are planning to include other core processes such as research and development, product development and marketing in the shared service strategy.

Whether a business is expanding into a new region or restructuring its operations, the SSC is increasingly recognised as an effective model to overcome unnecessary and potentially costly duplication. It can result in more effective use of expensive technology, a sharing of infrastructure costs and the need for fewer managers.

According to accountants Ernst & Young, a business in the process of restructuring its existing arrangements is looking to resolve a series of issues, including failure to operate effectively at a regional or global level and insufficient focus on core processes.

The shared service concept has been developing alongside the spread of multilingual call centres, which are also intended to reduce overheads and are driven by improved technology and the availability of lower-cost locations. Call centres for European operations are increasingly cosmopolitan: callers in Spain can ring a local number and be answered by a Spaniard – speaking from the Netherlands.

The Irish Republic, the UK and the Netherlands are currently proving the most popular EU locations for call centres. One estimate suggests that 20,000 such centres are already in operation in Europe and that this number is set to quadruple within the next three years. Some call centres already employ 1,000 people and in the UK alone around 200,000 people now work in them.

In comparison, the numbers employed in shared service centres – which have only started to spread across Europe in the past two to three years – remain modest. They are, however, set to expand significantly as companies realise that the concept of rationalisation need not be confined to production processes.

Among the big corporate names that have adopted shared service centre techniques are Unisys, McDonald's, Laura Ashley, Coca-Cola, American Express and Kodak. Despite the fact that the cost of establishing a central service facility can be extremely high, companies that have taken the decision report fast pay-back in terms of improved efficiency.

Costs alone, however, are not considered to be sufficient reason for establishing a shared service operation. Much of the emphasis is being placed on the provision of improved customer services; in theory, at least, the concentration of employees providing a range of back-up services from a single location can result in improved management information, a valuable team culture and, in turn, improved customer focus.

At present, most shared service centres are created for the use of one company. But facilities capable of being shared by a series of corporate customers – dubbed "third party" centres – are now increasingly likely. Beyond that, the centres may extend their horizons to serve companies not just across Europe but around the world.

INCENTIVES • by Michael Cassell

Rough passage to level playing field

The success of EU attempts to standardise aid for investors has been limited

The role of financial incentives in helping companies on the move to choose a new home is always embroiled in controversy. Virtually every government in Europe is prepared to put up cash and the volume of funds spent on the mission to lure foreign employers has been rising over the past decade.

Invariably, each new announcement about a significant inward investment is accompanied by complaints from the losing competition about the high cost-per-job equation struck to snatch the prize.

The truth is that, despite some success at EU level in standardising grant payments across the community, wide variations in incentives still exist.

As a result, Brussels has become increasingly concerned about the apparent "flexibility" of grant aid at ground level. A number of state-aided projects in Germany and France have been blocked and repayment of funds has been demanded. One company moving from Denmark to Ireland on the back of large incentives has provoked a number of complaints from competing locations.

Brussels, as part of a long, hard look at state aids, is also paying more and more attention to the role of tax incentives in determining location decisions. Tax benefits can be considerably more complicated – and less easily identifiable – than grant aid, and moves are afoot to get them better co-ordinated from the centre.

The French government, for years reluctant to join the struggle to compete for inward investors, earlier this year announced a reorganisation of its effort to boost the number of incoming companies. It has already claimed some modest success, citing the use of regional development funds to create employment at a cost-per-job of little more than £4,000.

In south Wales, in contrast, the South Korean electronics giant LG has decided to build a plant that will reportedly attract grants equivalent to £30,000 a job.

However, even with the existence of such attractive financial carrots, most relocation experts emphasise that incentives should never be of paramount importance when it comes to making the final decision on location. LG itself insisted that incentives had helped, but that other factors were equally important.

Wilfried Vossen of the consultants Price Waterhouse-Plant Location International, says that the incentives picture is complex and not necessarily what it seems: "The official version is that incentives become less important. The true version is that incentive packages become more and more impressive.

"Many regions offer impressive packages that in terms of real impact on cash flow amount to 50 per cent or more of the investment while still respecting the official EU position."

Mr Vossen uses an anonymous but genuine recent example of the extent to which the official position on incentives can bear little relation to the full extent of financial help made available. He cites an investment project in which the official figure for aid granted amounted to $15.6m but the actual amount of money handed over to the company involved was $33.8m. The essential difference lies in $24.9m of aid provided – though not in a publicly identifiable way – in the form of lower land costs, site equipment and loans.

As a result, the EU limit on the project of 25 per cent towards costs was comprehensively exceeded, the total assistance package representing just under 55 per cent of project expenditure.

It is clear from such examples that any company considering a move or a relocation cannot afford to miss the opportunity for a thorough appraisal of the range of available incentive packages.

A cash hand-out from the state may not prove the most decisive factor but to ignore the possibility of significant financial assistance is tantamount to corporate negligence.

IRELAND • by John Murray Brown

The Irish solution causes problems

Can the country's low corporate tax rates survive the scrutiny of Brussels?

Ireland's success as a business location is such that it is now attracting the attentions of the European Commission's competition authorities.

The issue of the Irish Republic's low rate of corporation tax – one of its main attractions for foreign investors – is currently part of a much wider debate in Brussels over the use of unfair tax competition.

Ireland offers a 10 per cent rate for manufacturing and traded services and a similar rate for financial services in Dublin's docklands area.

This policy runs until 2010. To provide some certainty for foreign investors, the Fianna Fáil-led government has said it will progressively reduce the standard corporate tax rate, currently 38 per cent (36 per cent for small businesses) to a uniform rate of 12.5 per cent by 2010.

But as part of discussions on a code of conduct to curb the predatory tax practices of some member states, Mario Monti, the commissioner in charge of the European single market, has indicated he would like to see Irish rates move much closer to EU norms. Charlie McCreevy, the Irish finance minister, is said to have been incensed by this. To show Dublin's concern, he and the enterprise and employment minister, Mary Harney, led a heavyweight negotiating team, which included the head of the foreign investment authority, to Brussels in early October.

Ireland's main defence is that – with only a few exceptions – the Irish tax regime has not led to the closure of businesses in other member countries. Indeed, the greatest interest has come from US companies, which now constitute 80 per cent of Ireland's total inward investment stock.

In the electronics sector, for example, Ireland now accounts for 40 per cent of European Union investment by US computer companies. US pharmaceuticals, healthcare and telephone-based services companies have also set up in large numbers.

The low-tax regime is an important consideration for high-turnover, fast-growth companies – particularly those that are publicly quoted and depend on their after-tax earnings figures to attract investors. There have been persistent allegations that the Irish government has allowed multinationals to use transfer pricing to inflate their Irish operations.

Some local economists allege the multinationals overstate the turnover, so as to be able to source more of their global activity to a low-tax location and reduce their domestic tax charge.

The Irish authorities dispute the charges. They also argue that tax is no longer the single most important determinant. They point to the availability of an increasingly skilled workforce, competitive labour rates, and the "proactive" approach of the authorities to the investors' needs.

Certainly, the workforce has been a big attraction for the low-wage, relatively low-skill teleservices sector, which, long-established in the US, is now taking root in Europe. Businesses are taking advantage of the advances in telecommunications to use a relatively remote location – Ireland – to centralise back-office operations.

Computer companies such as Dell and Gateway have set up telephone-based support services for their European PC sales operation in Ireland. Compaq, the world's largest PC company, has recently announced a similar investment. Hotel and airline companies have set up booking and reservation services.

Time differences with the US are often an advantage. US-based health insurance companies, for example, process claims in Irish time that are then ready for the following day's work in the US.

Some of the most encouraging aspects of Ireland's foreign investment drive are spin-offs for domestic Irish-owned industry. The Irish software sector, for example, has grown at a phenomenal rate in recent years.

Hyundai Semiconductor Europe's Dr Daehee Kim stands before the site of Hyundai's new microchip factory in Scotland *Lesley Donald/Hyundai*

UNITED KINGDOM • by Michael Cassell

Labour pains? False alarm

Fears that the new government would deter investors have been calmed

The UK has, for many years, attracted the lion's share of inward investment into the European Union. And despite some sceptics believing that the UK may finally find the going tougher, the success story seems set to continue.

In the year to April 1997, the UK government recorded 483 new inward projects, taking around 40 per cent of all inward manufacturing expenditure and achieving a record inflow for the third successive year.

The new investments – putting the UK second-only to the US as a recipient of inward investment in the developed world – created nearly 50,000 jobs. It also brought to more than £150bn the value of the nation's cumulative stock of foreign-owned projects.

The record was set under a Conservative administration that had prided itself on its ability to engineer a change in the economic and business climate that had foreign investors queuing up to make the UK their most favoured manufacturing location for serving European Union markets.

The big question was whether a change of government might change everything else. True, the Labour party presented itself as a more optimistic and supportive member of the EU, and its strategy of being at the heart of European affairs held attractions for companies anxious to do business.

Labour's conversion to a business-friendly party, nevertheless, was widely seen as less than entirely convincing and, given its commitment to the social chapter and the potential resurgence of union power, there was at least the danger that some would-be investors might have been put off.

Prior to the election of May this year, shadow ministers made strenuous efforts to stress their support for an active programme to boost inward investment.

Six months on, any fears that the first change in government in 18 years might result in the investment tap being turned off. Figures from the accountancy firm Ernst & Young, which analyses inward investment projects into Europe, reveal that the inflow into the UK actually rose in the period immediately after Labour's victory.

The figures maintain a pattern whereby almost one-third of Britain's manufacturing productivity growth over the past decade can be attributed to the impact of new production and management techniques introduced by foreign investors.

Earlier in 1997, the sort of factors which have helped make the UK a magnet for EU investment were highlighted when four French companies collectively announced they were moving some business operations to the UK in order to ensure their survival. They were led by Olivier Cadic, head of electronics company Info Elec, which opened in Ashford, Kent, immediately after the general election. Mr Cadic cited big differences between the two countries in local business taxes, corporation taxes and social security charges.

In September, Mr Cadic featured in an advertising campaign mounted by Locate in Kent in an attempt to encourage French investors to move across the English Channel to escape the heavy social costs he claims are crippling French industry. The successful efforts of the southern county of Kent, ideally located for companies wanting a foothold in the UK with close proximity to other EU markets, are now being studied elsewhere across the country.

Competition for investment has been intense and another shake-up is due with the government's plans to establish nine powerful regional development agencies in England.

Proactive inward investment programmes will be among the new agencies' main responsibilities, though the extent of their authority and the scale of their budgets is yet to be detailed.

There have already been warnings that while healthy regional competition is to be welcomed, fierce competitive bidding for inward investment could ultimately prove nationally counter-productive.

Top countries

Top 12 countries by number of inward investment projects received, January – June 1997

	Expansions	New investments	Total investments	% of total
UK	152	[illegible]	[illegible]	[illegible]
Ireland	35	60	95	7.7
Germany	19	[illegible]	[illegible]	[illegible]
France	28	54	82	6.7
Poland	21	[illegible]	[illegible]	[illegible]
Russia	10	54	64	5.2
Belgium	16	[illegible]	[illegible]	[illegible]
Hungary	16	32	48	3.9
Spain	18	[illegible]	[illegible]	[illegible]
Neths	10	32	42	3.4
Czech Rep.	9	[illegible]	[illegible]	[illegible]
Switz	4	18	22	1.8
Others	39	[illegible]	[illegible]	[illegible]
Total	371	862	1,233	

Source: Ernst & Young

WINNERS AND LOSERS • by Michael Cassell

A new pattern emerges

Countries in central and eastern Europe are attracting more companies

There might not appear to be anything unusual in a decision by a company such as Matsushita to spend $70m on a new television manufacturing plant in Europe; or in General Motors' allocation of another $300m to a new car assembly plant to help serve the European market. But when Matsushita decides to locate in the Czech Republic and General Motors opts for Poland, then it becomes clear that the pattern of preference among manufacturers seeking to operate in an expanding Europe is dramatically shifting.

With each new inward investment decision announced during 1997, previously favoured locations for investment across the continent have been served a powerful reminder of the strength of competition they now face in winning over companies capable of bringing prosperity and jobs to their own patch.

Now, after years of predictions about the potential held out by low-wage but high-skilled economies in central Europe, countries which even a decade ago were incapable of offering a stable and sophisticated environment for business are achieving success.

In a chart compiled by accountants Ernst & Young (see left) of the top 12 most attractive inward investment locations across the continent during the first six months of 1997, the UK took poll position, followed by the Republic of Ireland, Germany and France. But in fifth place came Poland, followed by the Russian Federation, with Hungary and the Czech Republic also winning places. Collectively, the former communist nations took an impressive 18 per cent of the recorded 371 inward projects. In a separate list of 40 significant investments over the same period, more than one quarter were located in the Czech Republic, Hungary, Poland, Romania and Slovakia.

Many of the projects were modest in value terms though they may clearly lead to larger investments in the next phase of corporate expansion. Included in the companies which this year have put down investments in central Europe are United Technologies, Volkswagen Daewoo and IBM. Some businesses have been long enough established to take second-stage investments while others, encouraged by the "pioneering" of their competitors, are now moving in for the first time.

According to David Rees, director of economics at Ernst & Young, there has been a marked increase in the number of mobile investments going to central and eastern Europe. "Such investments used to be primarily to serve local markets and involved basic activities such as bottling and food manufacturing. Now much of the activity is intended to serve western European markets."

Mr Rees adds: "Increasing numbers of companies are taking advantage of lower labour costs and improving infrastructures capable of serving businesses. There is also a psychological change under way, as more and more companies are seen to move in and make a success of it." The process will inevitably be given added impetus as countries line up to join the EU.

Some potential investors, however, have not been unduly impressed with the level of support extended to them by the state-backed agencies supposedly on hand to help. One manufacturing investor complains: "The problem appears to be that some countries are importing their expertise from the west; the trouble is they are attracting recruits who have proved second-rate at home.

One encouraging factor, however, is the lack of evidence that many significant inward investments are failing. Some projects in Russia have foundered but the general picture appears to be one of modest and cautious initial investments that minimise the potential downside but offer the chance of further expansion.

Perhaps more surprising is Germany's ability to take a respectable share of inward investment, given its notoriously high social costs and the underlying threat they pose to competitiveness. The picture may well be distorted, however, by the continuing inflow of projects to the eastern part of the country.

The effort also has to be kept in perspective in comparison to the external investment activities of German companies. In the first half of this year, 89 significant inward investment projects into Germany were recorded, against 133 projects announced elsewhere in Europe by German companies.

Germany also shares the dubious honour of being placed at the top of the league of European countries which appear most vulnerable in terms of losing manufacturing business to other countries. Ernst & Young has looked closely at which countries out of 23 from across Europe are most vulnerable to an outward migration of business.

According to the accountants, Germany, where the country's engineering federation has been predicting a large outflow of engineering companies unable to withstand high local costs, is bracketed with locations such as Belgium, Switzerland, Austria, Sweden and Italy in terms of maximum vulnerability.

In some danger of losing investment to the competition is France, although the country has been making strenuous efforts to improve its share of the total EU investment cake. At the other end of the scale, countries such as Poland, Hungary, Ireland and the UK are seen as showing resilience against competition.

There is some variation in chosen destinations between the distribution, customer services and manufacturing sectors. The UK emerges as the most popular location in all three sectors. Germany and France do well in attracting customers service and marketing operations and in distribution, while Poland, France, the Republic of Ireland, Hungary and the Russian Federation attract a significant share of manufacturing investment.

GERMANY • by Peter Marsh

Attracted by German capability

High costs are offset by a large home market and highly skilled workers

Four years of struggle is at last producing the sweet smell of success for the German division of Bell Flavor and Fragrance, one of the world's biggest makers of specialised products for the food, cosmetics and beverage industries.

Based in the US, the family-owned Bell hit on Leipzig as the location for its first European plant. In 1993 it took over a company called Schimmel, East Germany's biggest maker of flavourings and scented products in the days of communism.

Counting the cost of the acquisition, Bell has injected nearly DM30m into Schimmel, a company which was founded in 1829 and which has developed a strong reputation for scientific ingenuity – 80 years ago it produced a Nobel prize winning chemist. According to Raymond Heinz, president of Bell's German operations, the investment is paying off: the venture moved into profit earlier this year.

Output from the 120-person plant is about $15m a year, most of it based on formulations devised in the US which are then "customised" to meet the specifications of purchasers – roughly half of which are in Germany.

"It took us some time to pick up speed," says Mr Heinz. "Employees here were extremely creative but they had had to contend for years with the most meagre resources. The investment was like giving an artist a palette full of new colours."

Bell's experience mirrors some of the problems and the potential rewards of investing in the former communist eastern part of Germany. It also highlights some of the wider challenges faced by companies looking at the whole of Germany as a site for industrial activity.

According to Christoph Maier-Rothe, head of European operations management at Arthur D. Little, the US-based consultancy, most investment decisions in Germany are inevitably influenced by the country's high wage costs and relatively inflexible labour markets.

But these factors can be countered by more positive aspects – such as the high level of training in Germany and the consequent adaptability of the workforce to new skills-intensive work procedures using, for instance, large degrees of automation.

Raymond Heinz and management at Bell Flavors and Fragrance near Leipzig — Eckehard Schulz/AP

Germany's undeniable position as Europe's biggest economy – with large industries in fields as diverse as cars and chemicals – also make it an attractive place for suppliers to these sectors irrespective of the country's high costs.

"The need for market access is often the most important factor governing where companies decide to set up," says Mr Maier-Rothe.

From this it follows that certain kinds of industries, seeking to tap this market potential, may gain from choosing Germany as a production or marketing base, while others almost certainly will not.

"If you want to do [low skilled] assembly, don't go to Germany," advises Mr Heinz of Bell. "The industries that will benefit are those that use intellectual capital to turn out goods of high added value in plants that are likely to be heavily computerised."

IMI, the British engineering company, followed this advice, stepping up its German activities in the past two years by acquiring two leading valve makers – Heimeier and Herion – for a total of £216m. The companies respectively make products for central heating and pneumatic control.

"Despite its problems, Germany is one of the biggest markets in the world," says Gary Allen, IMI's chief executive. "And both the companies we've bought have superb products and do extremely good research and development. We are learning a lot from them."

Guardian Industries, a US company that is one of the world's biggest glass makers, has also expressed satisfaction at its recent foray into Germany. Last year, the company opened a DM270m plant in Bitterfeld, eastern Germany – its first in the country and its seventh in Europe. It chose the eastern part of the country mainly to supply glass to companies participating in the post-unification building boom.

The Bitterfeld plant employs 270 people and operates round the clock, 365 days a year. Fernand Stirn, operations manager at the plant, says some things about Germany concern him – such as high energy prices and taxes and the costs of labour regulations. But he has "no problems" about the skill and flexibility of his workforce. Productivity there has been about the same as that at Guardian's Luxembourg sites.

EASTERN EUROPE • Anthony Robinson

A mutual need developing

The former Soviet satellites are enjoying strong levels of foreign investment

When the Nazis razed Warsaw to the ground after the doomed rising of August 1944, the city hall with its bell tower and baroque elegance was among the architectural casualties. Over half a century later, builders have just put the last tiles on the sloping roof and the last lick of cream paint on the faithfully reconstructed replica. It stands as a gleaming symbol of the Polish capitalist renaissance on Theatre Square, just across the road from the opera house.

When it re-opens, however, it will no longer be home to the city's bureaucrats, housing instead the central European regional headquarters for New York-based Citibank, which financed its reconstruction. Across town in Three Crosses Square, the Dutch ING group is also building a new regional centre opposite the squat grey building that used to house the communist central planning commission.

The two new buildings are the most eloquent symbols of Poland's extraordinary transformation from communist-era basket case in 1989 to one of Europe's fastest growing economies. It is a turnaround which led to a surge in foreign investment and a construction boom which has created a raft of modern office blocks, banks and shopping centres.

The main question now is whether the formation of a new coalition government, in which Leszek Balcerowicz is deputy prime minister and finance minister, will lead to the faster privatisation and pension reforms promised. If so, Poland could boost growth through attractive policies which would stimulate domestic savings and investment, and attract more foreign investment.

Mr Balcerowicz was the architect of Poland's first successful macro-economic stabilisation plan. This laid the foundations for the country's entrepreneurial and dynamic economy. The omens, therefore, are good. But even before the elections, the outgoing socialist government had earmarked some of the biggest state companies – such as Polska Miedz, the copper combine, and Polish telecoms – for privatisation as well as several banks, led by Bank Handlowy.

The broad consensus behind faster privatisation means that Warsaw's attraction, both as the hub of a 39m strong Polish market and regional centre, for rising trade and investment is bound to grow. But so to will that of several provincial cities which had declined under communism.

Baltic port cities, such as Szczecin and Gdansk, for example, are home to a growing number of German and Scandinavian companies which either trade or produce relatively low cost consumer products for the nearby German market. Berlin, for example, is much better served by Szczecin, formerly Stettin, than by distant Hamburg, thanks to the Kaiser's canals and railways and Hitler's autobahn. Wroclaw, the former Breslau, is another western Polish city which has attracted a slew of foreign investors, including Cadbury's, Cargill and several other consumer goods companies.

Looking further ahead, the former textile city of Lodz is experiencing a revival which can only be strengthened by its position at the crossroads of the planned north-south and east-west motorways, a traffic system which will transform communications throughout the region when finally completed in the early decades of the next century.

Meanwhile, Hungary is raising its profile again after a tough 30 months of economic and financial austerity. Budapest's squeeze has been accompanied by an unprecedentedly fast and thorough cash-privatisation programme which has helped push total foreign investment in this compact country of only 10m people to more than $16bn.

Hungary can now call itself a base for 80 per cent of the top 50 global companies, as well as their state of the art factories producing cars, components, electronics, print-work, light bulbs by the million and many other products. Exports to the EU and, increasingly, to regional markets in the Central European Free Trade Area (CEFTA) have transformed job prospects and the balance of payments.

Warsaw and Budapest are on the up, along with Moscow, which has been transformed into a buzzing business metropolis by Yuri Luzhkov, its energetic mayor. But Prague, for all its baroque charm, has suffered as a place to do business from the Czech government's failure to push through structural reforms.

Refurbished and glistening, Prague remains a wonderful place for a romantic weekend, although less so in winter when it is often cold, damp and smoggy. Only very recently, however, has the government woken up to the fact that the Czech Republic desperately needs foreign investors to make its banks and enterprises competitive in the unforgiving global market.

Apart from Volkswagen, with its huge investment in Skoda, most international companies retain a modest presence in the Czech republic, if any at all. This could change as the government and Czechinvest, its inward investment agency, step up their efforts to woo Japanese and other Asian investors, as well as US and EU-based companies.

Czech wages are already relatively high, however, and the 1993 divorce from Slovakia leaves the republic with a small domestic market of around 10m.

Czech companies retain a strong, but declining, presence in Slovakia, whose revival is spearheaded by the busy mayor of the beautifully restored capital, Bratislava.

Only 60kms from Vienna, Bratislava has few direct international flights but is well served by Vienna airport and is linked to the European motorway system which now extends to Budapest. The Slovak government is investing heavily in better road and rail facilities to improve internal communications which many Slovaks believe were neglected under the former Czechoslovak federal arrangement.

Increasingly, companies involved in trade with western Ukraine use Kosice, the now revitalised capital of eastern Slovakia as a base. Kosice is home to the country's export-orientated VSZ steel complex and several of downstream engineering and ancillary plants formerly geared to trading with the east.

Meanwhile, the economic fortunes of Bulgaria and Romania have been transformed over the last six to nine months, putting Sofia and Bucharest back on the business locations' map. The ousting of neo-communist regimes in both countries has been followed by the inauguration of actively pro-business, pro-foreign investment governments with strong popular backing for the market-based reforms needed to close the yawning income gap with the rest of Europe and gear up for eventual inclusion in the EU.

With the Caspian Sea region likely to develop as one of the biggest new sources of oil and gas in the early 21st century, investors are also flocking to the Romanian Black Sea port of Constanta and the Bulgarian ports of Varna and Burgas. All are positioning themselves to profit from the huge expansion of cross-Black Sea energy and energy-related trade, the first signs of which are already to be seen on the bustling quays and busy harbours.

Breaking the ground for the new Opel Poland plant — Alik Keplicz/AP

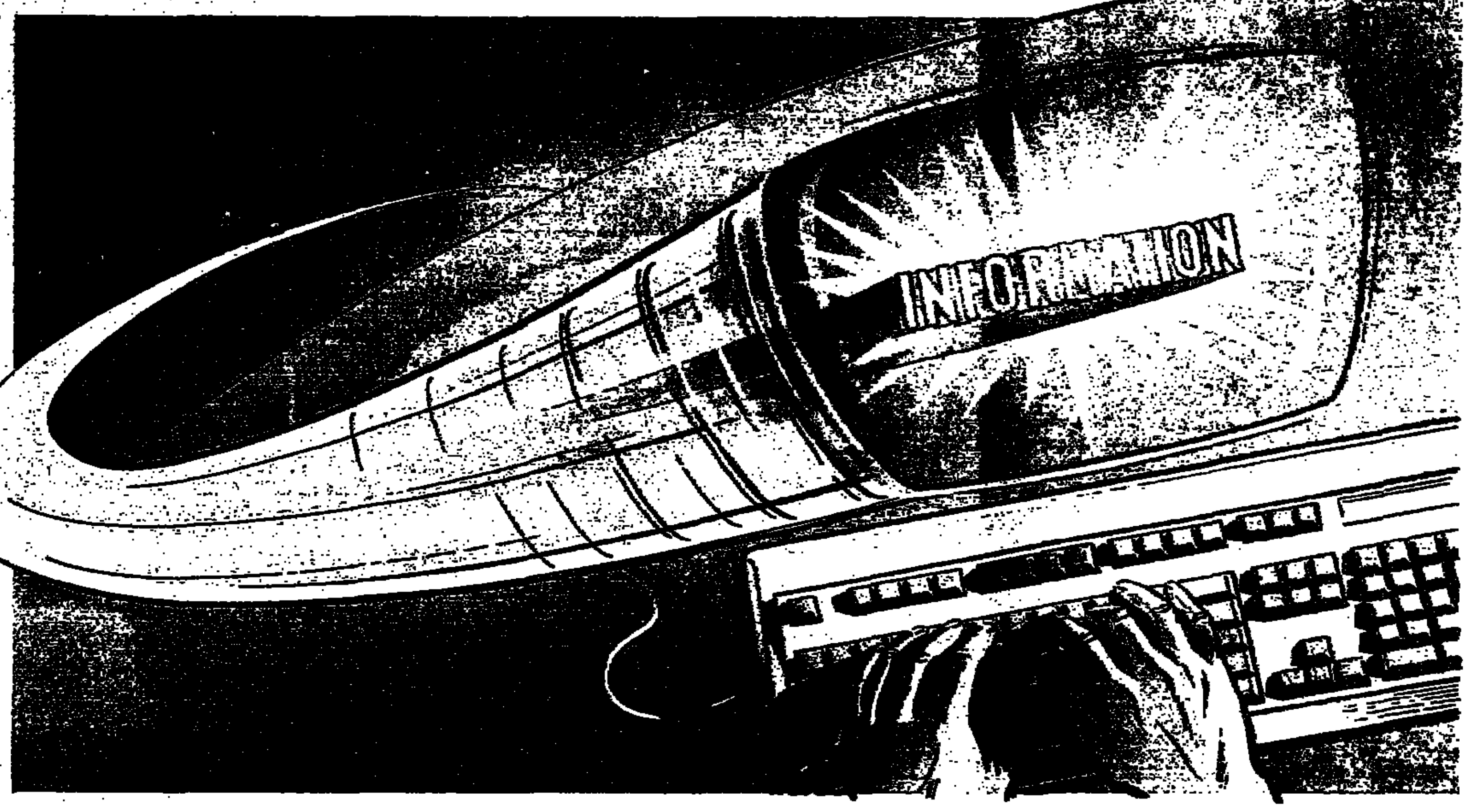
هكذا من الاصل

FT IT **Information** Technology

Wednesday **November 5** 1997

With up to 100m users already, the ever-expanding Internet is suffering from its own success. Now, in a never-ending game of catch-up, telecommunications groups are investing huge sums to upgrade the Internet's backbone infrastructure, reports **Paul Taylor**

The need for speed



Navigating the Internet using a dial-up modem has been compared to trying to drive a double-decker bus down a country lane – at best, it is an excruciatingly slow and painful process.

Similarly, the World Wide Web has been dubbed the "world wide wait" by users frustrated by the time it takes to download images in particular.

Congestion on the information superhighway is such that some electronic page reqnests are making as many as 50 'hops' between a user's computer and a target web site contributing to delays of up to five seconds in response times.

These problems and the lack of mid- or broadband services have already stunted the development of some multimedia-intensive Internet applications and threaten to further delay the widespread use of the net by consumers for services as electronic shopping and digital telephony.

For business users, insufficient ser-bandwidth means delays, issed commercial opportunities a reduced flexibility.

'e are moving from an era when it was OK to send memos, to a time when just because of the speed at which things happen, we need more 'high-touch' and less low-tech applications," says Tom Cooper of ATML, a California-based specialist in Asychronous Transfer Mode (ATM) technology, with its roots in Cambridge. "We are moving to an era when real-time digital voice and video will be important."

Some of the current bandwidth constraints reflect the deficiencies in the Internet's infrastructure which has been cobbled together over the past 30 years from a disparate collection of hetrogeneous networks.

In part, the Internet is also suffering from its own success. Both the number of Internet users, now estimated at between 60m and 100m, and the size of files being transferred over the Internet have grown rapidly leading to periodic doomsday predictions of Internet gridlock.

Even text-based e-mail, once the bread-and-butter traffic of the Internet, is being replaced by enhanced e-mail files with sound, photographic and even video attachments. At the same time, second generation corporate web sites are generating an explosion of multimedia content, boosting traffic on the Internet backbone which is now doubling every 100 days.

As the number of Internet users and web hosts have grown exponentially over the past few years, the data networking, telecommunications and Internet service providers who own the Internet backbone – the high-speed connections which bind together the Internet – have been scrambling to keep pace.

In this never-ending game of catch-up, telecom groups are investing huge sums in upgrading the Internet backbone infrastructure with fast transmission technologies such as ATM, Frame Relay and packet over sychronous optical network (IP Sonet).

Switch and router congestion – a significant cause of delays on the Internet – is being tackled through the introduction of prioritising mechanisms and quality of service classes and some telecommunications companies are seeking to eliminate the need for routers altogether by delivering switched virtual circuit services for ATM.

Transatlantic capacity in particular has mushroomed as the big Internet service providers scramble to keep pace with demand. UUNET, the WorldCom subsidiary which has just upgraded its own UK backbone to 155Mbps and has a 135Mb transatlantic link, is spending $1m a day to upgrade its worldwide Internet backbone infrastructure.

In a large part, this reflects the growing needs of corporate customers – for example, in Britain UUNET says the number of orders it is taking for high bandwidth 2Mb corporate connections has more than doubled in the past six months.

But adding capacity to the backbone is not the whole answer. For a start, the speed of the fastest network is constrained by the rate at which data can travel over the most sluggish part of network and as fast as one bottleneck is eased, another appears.

In addition, the very technologies which are designed to speed Internet access and reduce user waiting times, such as fast modems and integrated digital services network (ISDN) lines, are themselves leading to higher traffic volumes.

A technique called 'Cache management', pioneered by Mirror Image, a Stockholm-based start-up and now also adopted by Cisco, represents one attempt to break this loop. Cache management involves Internet service providers copying and storing commonly accessed web content locally on huge servers where it can be accessed quickly.

Once set up, web browsers in Europe would no longer have to traverse the congested transatlantic links. "Users in North America will also benefit from reduced traffic on their side of the Atlantic," says Sverker Lindbo, Mirror Image's founder and chief executive.

In the meantime, however, higher speed Internet access devices and other innovative technologies do offer some respite for end-users. These technologies include faster modems and other transmission devices to deliver more bandwidth over the existing telecommunications infrastructure, and the use of new digital delivery mechanisms like cable, wireless and satellite.

Inside companies, slow 10Mbps ethernet networks are giving way to switched networks built around fast (100Mbps) ethernet connections. Some companies, particularly those with high volumes of mixed local area network traffic, have adopted ATM all the way to the desktop, while others are investigating Gigabit Ethernet running over fibre optic cables.

Even the connections to desktop PCs are being upgraded to handle higher capacity, simply with the advent of the Universal Serial Bus (USB) and IE-394 (Firewire) technologies coupled with faster internal PC architectures capable of handling large multimedia files.

"File sizes have just exploded," says Sundi Sundaresh, vice president of worldwide marketing for Adaptec, the industry leader in I/O (input/output) technology. "It is primarily the richness of content that is driving bandwidth demand," he says.

From an end-user perspective one of the quickest and easiers ways to speed up Internet access has been to upgrade the modem connection. Today, 33.3Kbps modems are commonplace but modem manufacturers' attempts to push analogue modem technology to the limits with 56Kbps devices have not been wholly successful.

In part, this is because two incompatible 56Kbps 'standards' – x2 and K56flex – have emerged, backed by rival industry consortia. However, most independent tests have shown that 56K modems – which supposedly can download data at 56Kbps but are limited to a maximum upload speed of 33.3Kbps – rarely achieve their full theoretical data throughput because of line problems and other factors.

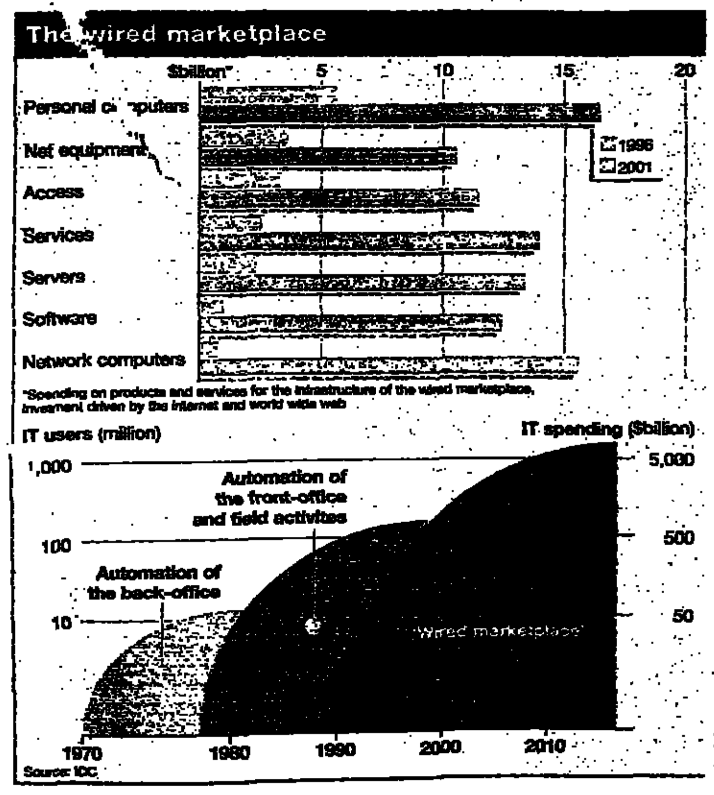
A more reliable, but also more costly option, is to abandon analogue modems in favour of the digital transmission and the 'mid-bandwidth' services enabled by ISDN lines. Basic ISDN services enble data to be transmitted at 128Kbps over existing ordinary copper telephone lines, but require special equipment in the telephone exchange and the customer's home. As a result, its adoption has been patchy.

In places such as California and Germany, where local phone operators have offered low installation prices, the number of ISDN lines has grown quickly. In Germany, for example, the number of ISDN lines jumped from fewer than 100,000 in 1990 to almost 1.85m last year and is growing at more than 100,000 a month.

But consumer demand has been much more subdued in countries such as the UK,

Continued on next page

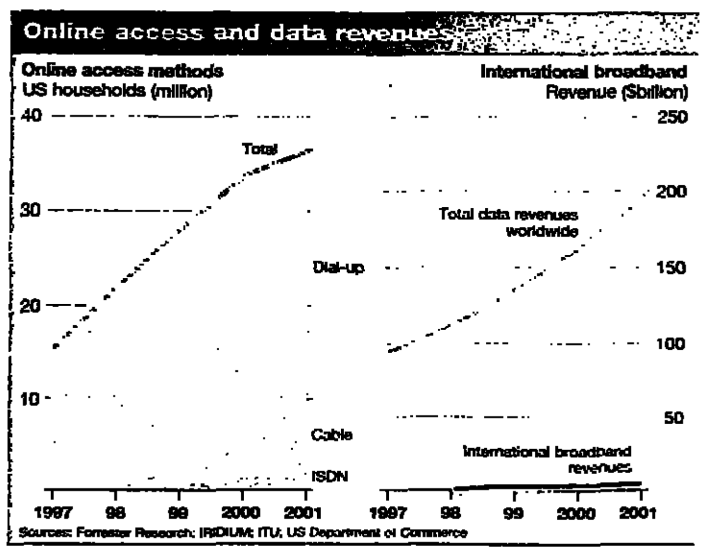
The wired marketplace



*Spending on products and services for the infrastructure of the wired marketplace, investment driven by the Internet and world wide web

Source: IDC

Online access and data revenues



Sources: Forrester Research; IRIDIUM; ITU; US Department of Commerce

Sponsored by UUNET UK

■ **Competition winners announced today: see full details on page 18**

INTERVIEW • Paul Taylor talks to Lew Platt, chairman of Hewlett-Packard

Prospect of a world full of digital devices

An IT industry leader anticipates the emergence of function-specific digital information devices for home and office – very different from the personal computers we use today

When senior executives meet Lew Platt, chairman and chief executive officer of Hewlett-Packard, they mostly want to talk to him about the Internet and corporate intranets – private networks, based on Internet technology.

"The really hot thing right now is the application of the Internet and intranets in their companies," says Mr Platt who joined HP in 1996. "They want to know how they can use intranets to extend out into the Internet as a way of doing business."

More immediately, he says he finds it "amazing how many companies are still trying to implement things such as e-mail within their companies – I find that absolutely remarkable."

However, HP's 56-year-old chief executive says that most business executives recognise that the Internet can connect them with suppliers, with customers and with other constituencies, including shareholders.

In many ways, intranets are a new name for something that has been going on for a long time, he says. "Most people are realising that if they haven't already built these very robust networks yet, then they are quite far behind and they need to move very quickly."

HP itself already allows a number of its key suppliers to access its intranet to look inside the company and check on demand for their products. The California-based group is also in advanced experimentation stages of linking a few of its best customers into HP's network. So, instead of having to call the office to ask what the status is on an order, they can check it themselves. "I think that will be very commonplace in the future."

The Palo Alto-based group has also used technology internally to develop global virtual manufacturing operations where, instead of having a manufacturing facility dedicated to a specific geography, the manufacturing resource is really fungible. This provides a wide range of benefits including flexibility and what he calls "load balancing". But he warns that it takes very robust systems to do that.

One compelling benefit is in the area of inventory, he says. Before HP adopted its virtual manufacturing model, one plant could run out of a component and have to pay a premium for a rushed order – or close-down manufacturing temporarily, even though there was plenty of the same component in another location. "Today, that sort of thing doesn't happen. We will simply move the part – or, in some cases with our vendor, move the delivery of the next part from one location to another."

Similarly, HP, which had revenues last year of more than $38bn, has used technology to make its marketing operations more streamlined, adapting to local markets. "We used to reproduce marketing materials over and over," says Mr Platt. "Today, we put them out on the network, people pull off what they want, do localisation and – bingo! – you have whatever you need in a particular market, all out of the same source material."

HP has also enthusiastically embraced teleworking, particularly in its sales operations. Overall, about five per cent of its workforce operates from 'virtual offices.' Exploiting HP's extensive internal network has enabled the company "to re-engineer the way it does almost everything," he says.

As a result, he claims the company is much more efficient, makes better use of basic materials, provides employees improved access to information and allows them much more flexibility in terms of how they work.

Mr Platt classifies himself as "an incidental telecommuter... I travel 60 per cent of the time, and through e-mail and voice mail, I'm able to function out of the office and keep things moving." One result of this has been to help speed up product cycles and other business schedules, particularly in the fast-moving IT industry.

However, Mr Platt believes that some companies may be "beginning to bump up against the limits... if you look at companies that are already very heavy users of the network, of facilities such as voice mail, e-mail and so forth, then we are already doing business about as quickly as it can be done.

"As someone remarked recently, the time between decisions that you are asked to make is now shorter than the time it takes to make good decisions, and that probably suggests we are getting close to some sort of limit."

Indeed, HP's chief executive argues that in some circumstances, what he calls "the rules of the road" or "social norms" have yet to catch up with technology. For example, he says it is considered unacceptable for him not to be attending to his voicemail or e-mail over a three-day holiday weekend. "People will not tolerate the fact that I don't get back to them within 24 hours – and perhaps faster.

"I guess I'm arguing in some ways that this has gone to a point of diminishing returns and we haven't quite worked out what the social norms are for when it's OK to switch off your mobile phone or to go on vacation and not reply to e-mail and voice mail."

On the broader outlook for the IT industry, he believes the world will eventually be populated by hundreds of different types of digital devices. He quotes the head of HP laboratories who said "we are headed for a world in which we will have an information utility and information appliances."

Mr Platt adds: "If you think of the parallel world where we have an electric utility and electrical appliances, then I think you begin to understand what the future holds. Our belief is that as this information utility becomes very robust, it is actually going to be more widely available than the electric utility because wireless access will give you even more availability.

"Today, if you want to plug in an electric appliance, you have to find an electric outlet. But with an information appliance, you have – in a cellular phone, for example – everything you need to gain access."

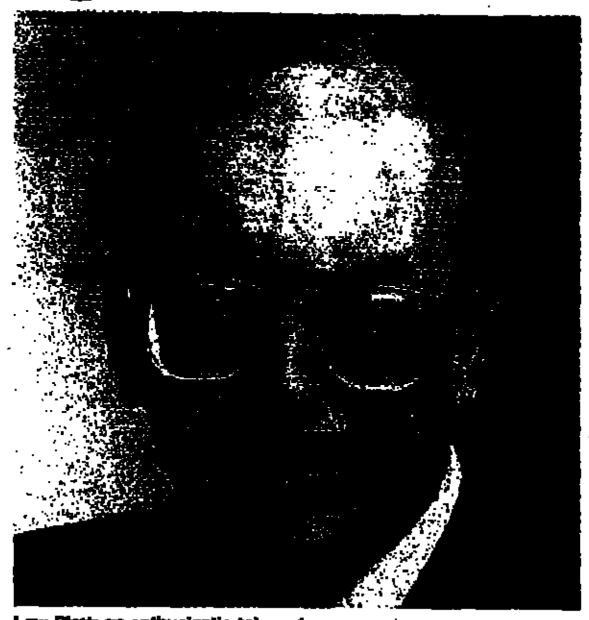
Instead of general purpose PCs, HP is betting that there will be a new range of function-specific digital devices. Today, he notes, "we are all using roughly the same PCs which, if you think about it, doesn't make much sense. Thus, my dentist, my architect, my lawyer and my wife are all using the same type of PC – yet we are doing such different work."

Before long, we will begin to see a proliferation of what he calls information appliances when, instead of having a PC, we will have a dozen – or perhaps several dozen – information appliances scattered about the home, car and office.

"When you think about electric appliances, they are pretty small, dedicated to a specific purpose: you never read the manual. They are widely available and you don't necessarily have to go to a speciality store to buy them. Today, you can even buy electric appliances in the grocery store – and I think the trend in information appliances are going to be exactly the same."

In the same way that the electric motor has become an embedded technology, microprocessors will also become all-pervasive and transparent to the user. "We are still in the stage where we've a fixation around the PC or the processor, but that processor is going to 'disappear', just like the motor has. You'll be surrounded by them, using them all, but you're not going to describe them in terms of a PC or a processor, any more than you think about the motor in your car."

Mr Platt believes that large IT companies, including Intel, HP and Microsoft will benefit from this transformation. But he adds that "just as in the electric appliance area, there has been a proliferation based on the number of appliances – you will see that trend in information appliances as well."



Lew Platt: an enthusiastic teleworker

HP wants to be a significant appliance manufacturer and contribute in a number of other ways. "Our technology is very important to building the utility. We are not going to be a utility operator – we don't want to be – but our technology, computers, test and measurement equipment and our components are all very critical to the building of the utility."

The company also believes it will be one of those businesses that populates the utility with appliances. "Through our venture with Intel, HP will have a significant role to play in building the processors that will be used by people and embedded in these appliances."

As a staunch free marketeer, Mr Platt believes governments have only a limited role to play in the emerging global information industry. "A lot of what we need is some standards to be established around the world so that this information utility really knows no physical or geographic boundaries," he says. "Governments have some role to play in that – for example, a government regulates the [radio] spectrum in virtually every place in the world."

Government authorities clearly need to make sure that spectrum is made available to the players – "but other than that, they really do need to get out of the way. This is an industry that will develop more quickly without regulation than with regulation."

"The industry actually has done very well around *de facto* standards. Indeed, these standards drive our industry much more than official standards. Official standards emerge usually years after *de facto* standards have taken over and I think that is the right way to do it – with the possible exception of spectrum-allocation and things like that, where a government really does have a role to play."

He believes it is important that the governments of the world co-operate, "so we end up with a pretty seamless worldwide network.

"The good news is: it's going OK. It's not perfect, but it's not too bad."

Hewlett-Packard's man at the helm

Name: Lewis E. (Lew) Platt
Current title: chairman of the board, president and chief executive officer of Hewlett-Packard.
Born: April 11, 1941, in Johnson City, New York.
Education: He holds a degree in mechanical engineering from Cornell University in Ithaca, NY, and a master's degree in business administration from the Wharton School of Business in Philadelphia.
Career: After joining HP in 1966, Mr Platt held a variety of management posts in the areas of medical products, analytical and computer operations before becoming an executive vice president in 1987. The following year he was named to oversee the computer products business. In 1990, he became head of the computer systems organisation.
In 1992, he was elected president and chief executive officer and a member of the board of directors. He succeeded David Packard as chairman when Mr Packard announced his retirement in September, 1993.
Other activities: In 1995, Mr Platt was appointed to the Advisory Committee on Trade Policy Negotiations by President Bill Clinton and is serving as chairman of one of its three task groups, the World Trade Organization Task Force.

THE NEED FOR SPEED

Bandwidth shortage

From previous page:

where British Telecom has marketed the service almost exclusively to the business user. Nevertheless, there are an estimated 7m ISDN users in Europe – and Frost & Sullivan, the market analysts, expect the number of European users to jump to more than 30m by the year 2000.

However, some analysts believe that ISDN may have 'missed the boat' as a remote access technology and will be superceded by other digital technologies including xDSL (digital subscriber line) and cable modems in the home and small office.

A wide range of manufacturers including Intel, Motorola and Hewlett-Packard have all developed cable modems which can be added to traditional fibre/coax cable networks and provide up to 6Mb of downstream bandwidth to individual users.

Cable modems are being shipped in some markets, particularly in the US, but deployment has been hampered by a number of limitations. These include the need to upgrade older cable systems which are often uni-directional only and the fact that the 6Mbs of potential bandwidth must be shared by all users on a cable branch.

Thus, if only one user is signed on the full 6Mbs is available, but if 100 users are connected, the data rate drops dramatically.

Despite this, the Forrester Research group predicts that cable modem services will be the most widely available middleband technology for US consumers and that by 2001, 7m US households will have cable modems.

Indeed, the development of cable modems and the perceived threat they pose to the business of traditional phone network operators has prompted phone companies to look at alternative high speed data technologies, and xDSL in particular.

Asymmetrical digital subscriber line (ADSL), the most popular 'flavour' of xDSL technology, uses high frequency signals to transmit data at rates of around 6Mbps over ordinary 'twisted pair' copper phone lines.

"The value proposition of ADSL service is compelling

> 'No matter how much bandwidth we have, it's never enough'

for the end-user," says Ron Westernik, vice president of marketing in 3Com's broadband access communications division. "For most applications it provides near-ethernet performance for small or home offices.

"Multi megabit-per-second bandwidth to the home or small office enables new applications in commerce, entertainment, education and science and the service's cost in the typical carrier's business case is roughly comparable to basic ISDN service."

But despite this, Forrester predicts that while ADSL looks great on paper, "most local exchange carriers will fail to pump up sales to mass market proportions for three reasons: internal dissonance, regulatory impediments and weak demand."

Other options include MMDS and LDMS, recently developed wireless technologies that have already been deployed by at least one operator, CellularVision America in New York and which delivers data at 500Kbps.

Business users pay $79.95 a month for the service, with an installation fee of $225, while home users pay just $49.99 a month and $199 for installation.

Some bandwidth-hungry companies – and wealthy consumers – are als looking to a new generati of satellite-based services to satisfy their increasin ly global broadband req re-ments. For exa ple, DirecPC, a Hughes livetti joint venture servi e, delivers a 400Kbps dc nstream link.

Meanwhile, wide range of other comp nies including Motorola, I tel and Teledesic, a art-up company backed y Bill Gates and Craig McCaw, have also announced plans to launch satellite-based data services.

Whether these services prove attractive options to business users will mainly depend on pricing. But what is clear is that no matter how much bandwidth becomes available, there is never enough.

As Steve Perlman, chief executive of WebTV, the Microsoft-owned developer of Internet set-top boxes notes: "With every generation of data technology, we think there is unlimited bandwidth. There never is – we always find something to do with it."

Interview with John Patrick, IBM's Internet guru: see back page of this Review

Fax-U-Back Information Service

For details of forthcoming issues of the FT Review of Information Technology, UK callers may use the FT-IT Fax-U-Back Service. Details include editorial synopses of future issues and writers for various themes.
The fax number to call is:

0990 209 903

For callers outside the UK, the fax number is +44 990 209 903

Technical note: Make sure your fax is in polling mode. If you have a handset on your fax machine, dial the Fax-U-Back number and press 'start' when instructed. Alternatively, the number can be dialled direct from the fax keyboard, followed by 'start'.
If callers have technical problems regarding this service, telephone 0171 873 4378. Callers from outside the UK should dial: +44 171 873 4378.

To obtain back copies of the review, call 0171 873 3324. Callers from outside the UK should dial +44 171 873 3324

E-mail: FT.IT@FT.Com

The FT web site provides online news, comment and analysis at http://www.FT.com

FT Review of Information Technology

The FT-IT Review is published on the first Wednesday of the month, except in August. In addition, a weekly FT-IT news and feature page is published on each of the other Wednesdays of the month. IT Appointments are puplished on Wednesdays.

FT-IT Review, editorial controller: Michael Wiltshire
Editorial inquires: see details of fax-u-back service, left.

Writers in this issue (volume three, number nine):
Paul Taylor, IT Correspondent; Geoffrey Nairn, Tom Foremski, Nuala Moran, Philip Manchester, Rod Newing, George Black, Michael Dempsey, Joia Shillingford, Geoffrey Wheelwright, Mike Wiltshire and John Williamson

Graphics: Robert Hutchison.
Cover illustration: Mark Thomas.
Picture research: Patricia Lee and Matthew Glynn

The next issue: December 3
Main theme: Focus on electronic commerce :
Plus online services for smaller offices and the home
Special section: Education in an Internet age
New directions: Investment in the electronic games industry.
International Focus: India's Software Industry

New Year special issue: January 7:
In Shape for '98: The theme of the first of the 1998 series of FT-IT Reviews will be putting your business in shape for 1998, with articles looking at developments and requirements in the following areas: the people, the kit and the processes.

For advertising details, contact:

In London:
Katharine Morton, tel (+44) 0171 873 3746.
Nadine Howarth, tel (+44) 0171 873 4129;
or fax (+44) 0171 873 3062.
E-mail addresses: katharine.morton@FT.com; nadine.howarth@FT.com

In the US:
New York: Richard Willis, telephone (212) 742 2400; fax 319 0704. E-mail addresses: richard.willis@FT.com
Los Angeles: Nicholas Mayle, telephone (415) 637 9775; fax 415 637 9795. E-mail: nmayle@financialtimes.com

In Japan:
Tokyo: Patrick Brennan, tel 81 03 3295 4050; fax 81 03 3295 1264 . E-mail: patrick.brennan@FT.com

In Hong Kong:
Sarah Leventhorpe, tel 852 2868 2863
fax 852 2537 1211. E-mail: sarah.leventhorpe@FT.com

Subscription service: Full details appear on page 17 of this review.

Financial Times
Number One, Southwark Bridge, London SE1 9HL

هكذا من الأصل

مكرر من الأصل

FT IT

Focus on digital media

Here, and on the following 12 pages, FT writers examine developments in digital media:

Dawning of the information age

The overlap of three technology arenas – computing, communications and consumer electronics – opens the way for seamless access to multimedia information and entertainment, reports Paul Taylor

The second half of the 20th century will probably be remembered for the birth of the information age – a time of unprecedented change ushered in by the rapid advance of digital systems, based on the 'ones and zeros' of binary computer language.

Because they share a common foundation, digital technologies are sweeping away the differences between data processing and telephony, laying the foundations for the dawn of the information age, or global information society as some call it.

Digital technology has made it possible to convert text, sound, graphics and moving images into coded digital messages which can be combined, stored, manipulated and transmitted quickly, efficiently, and in large volumes over wired and wireless networks without loss of quality.

Some suggest the late 1990s will be remembered as the time when computing, communications and consumer electronics – the 'three Cs' – began to merge, opening the way for seamless access to multimedia information and entertainment.

This dynamic process is epitomised by the explosive growth of the Internet, widespread deployment of internal corporate intranets and an explosion of content delivery mechanisms producing what Andy Grove, Intel's chief executive, describes as "an inflexion point".

Indeed, electronic commerce and the multimedia revolution are driving the computing and telecommunications worlds into ever-closer contact, forcing two industries with different histories and cultures into competition and co-operation - what Intel's Mr Grove calls 'co-opetition'.

"Convergence of the IT, telecoms and broadcasting industries – made possible by developments in digital technologies – means that many different organisations are positioning themselves to provide multimedia products and services to the home and business," confirms Ovum, the market research firm.

This is reflected in the growing number of alliances, partnerships and mergers in the IT, communications and entertainment industries. For example, three months ago Compaq Computer, the PC market leader, Microsoft, the world's largest software supplier, and Intel announced a joint initiative to work with the broadcasting and cable television industries to "realise the full potential of digital television across a range of PCs, hybrid PCTVs and digital TV appliances".

> In today's office, everything is going digital, says Xerox

Meanwhile, networking companies, such as Cisco, 3Com and IBM, have forged links with big telecom equipment suppliers as the telecom network operators themselves struggle to come to grips with the 'new telephony' epitomised by the likes of WorldCom, which combine traditional voice telephony and IP (internet protocol) expertise.

Within the IT sector itself Microsoft, the world's biggest software company, has moved aggressively into the 'content' business through substantial investments in MSN, MSNBC and web television. And Sun Microsystems, best known for its powerful workstations, Risc microprocessors and web servers, has become an important force in the software industry through its pioneering development of Java, the 'platform independent' programming language.

The ability to manipulate digital images has breathed new life into the film and entertainment sectors – enabling film makers such as Stephen Spielberg to bring dinosaurs to life – while digital 3D-imaging holds out the prospect of remotely delivered medical services, virtual journeys to inhospitable environments and the transformation of remote learning and training programmes.

As Masakazu Sakisaka, in charge of sales and marketing for Seiko Epson's IT product business, says: "The barriers between information products and other industries are disappearing and new competition and new alliances are appearing." Epson, already a leader in the ink-jet printer market, is seeking to exploit its expertise in digital imaging through alliances with others in the consumer electronics and industrial markets.

Elsewhere, convergence is creating great business opportunities and challenges. For example, internet telephony and e-mail are challenging traditional telecoms business models, web television and so called internet 'push' technologies are forcing broadcasters and information suppliers to reassess their strategies and technologies such as digital broadcasting, cable modems and digital versatile disk (DVD) promise a revolution in delivery channels.

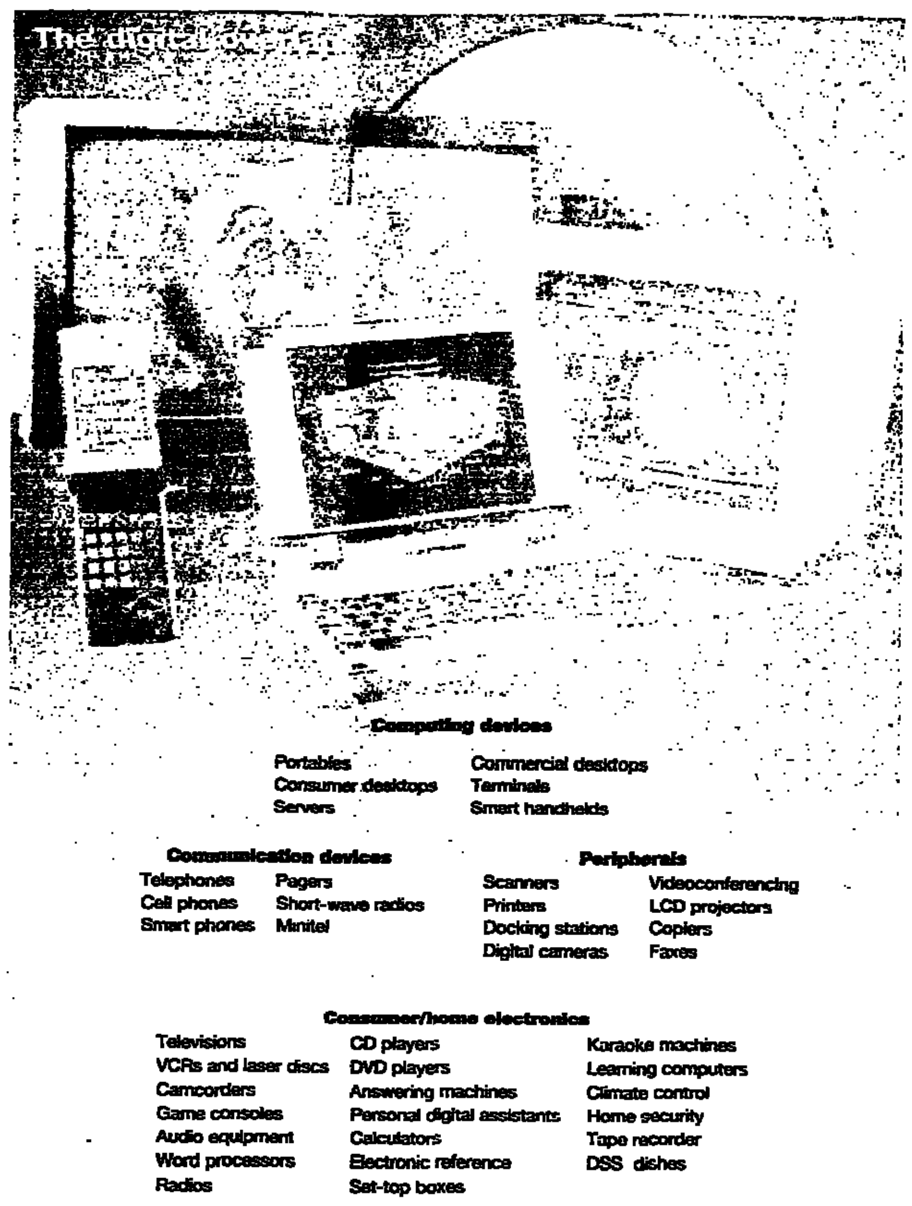
In the office, as Xerox, the digital document pioneer points out, everything is going digital. Desktop PCs and their portable counterparts pack the power of yesterday's mainframes, networked multifunctional digital devices – combining the functions of printer, scanner, copier and fax - are beginning to replace standalone machines and digital copiers and printers are delivering speed and flexibility to the in-house print shop.

Similarly, the arrival of low cost digital cameras, aimed at the consumer and professional markets, are beginning to transform the photographic industry – an industry which generates 100bn photographic images a year in 1996 – and enabling new forms of communication such as the photographic e-mail.

In the home, web television, smart phones and low-price computing devices herald the arrival of the digital networked home. "NCs are significant because they are part of the convergence between the TV and computer industries and also because they enable new services," notes Ovum. NCs could provide the 'bridge' between the competing aspirations of the television and computing industries.

Intel estimates that 90m PCs will be sold this year, compared with 100m televisions but, within 18 months, the US chipmaker expects PC sales to overtake the TV as the home PC becomes a consumer appliance.

Mr Grove believes that if PC sales – and, therefore, sales of the Intel microprocessors which power most of them – are to continue to grow, the PC will need to "win the battle for the consumer's eyeballs".



One recent study suggested that the networked and multimedia-enhanced PC might indeed be winning this battle. It found that adults in the US, between the ages of 18 and 35, who previously spent an average of four hours a night watching television, are now devoting one of those hours to the Internet.

The shift has been recognised by advertisers who, according to the Price Waterhouse 1997 Technology Forecast published earlier this year, are starting to switch their dollars to the Internet. Meanwhile, miniaturisation and the shift from analogue to digital services has transformed the mobile voice and data markets, particularly in areas such as Europe where the GSM standard has been widely adopted.

"The coming era of digital personal communications is an era of converging technologies, converging products, converging media and converging industries," says Mr Eckhard Pfeiffer, president and chief executive of Compaq Computer, the world's leading personal computer manufacturer.

If the pace of change is catching some companies off guard consider this – it is likely to accelerate further. As Herbert Kircher managing director of IBM's German operations, notes: "The tremendous progress in base technologies, such as microprocessors, memory chips, bandwidth and magnetic/optical storage, enables unlimited network computing.

"These technologies will continue their dramatic increase in density, performance and price/performance ratio for the next decade at the same pace as in the last decade."

As digital technologies transform the nature of business, government and society, it is likely that the traditional definitions of computing devices themselves will also need to change.

DIGITAL PHOTOGRAPHY • By Geoffrey Nairn

Fierce competition in fledgling market

For now, digital cameras are used primarily as computer peripherals, rather than consumer products

Whether they are snaps for the family album or professional studio shots, digital cameras are winning over a growing number of photographers for whom the mystique of film-based photography too often translates into delay and frustration.

Digital picture quality is improving and prices are falling, – and with even the big film manufacturers strongly backing the new technology, it looks like digital cameras are here to stay.

Digital cameras were once little more than expensive toys. Images were acceptable when viewed on the Internet or a PC screen, but blow them up or transfer them to paper and the quality limitations were all too readily apparent.

The technology has improved dramatically in the past year and professionals who would once sneer at digital cameras are increasingly using them to quickly turn round commercial jobs which would take too long using film, or to create images for web sites and multimedia presentations.

Paparazzi have discovered that by hooking a digital camera to a mobile computer and digital phone they can get their candid photos to the picture desk quicker than the competition.

It is in the studio camera market that the technology has made the greatest strides. Providing the image does not require much enlarging, professional cameras, costing £3,000 ($4,860) to £8,000, ($12,960) can produce digital images of acceptable quality for use in product catalogues and similar applications.

The great advantage here is the images can be transferred straight from the camera to page make-up program. This saves time and cost compared with the traditional process, in which Polaroids must first be taken to check lighting and composition, several rolls of film can be wasted trying to get the shot right, and finally the film must be developed and scanned to create a digital file. The image quality of low-end digital cameras, which cost from £300 ($486) to £600, ($972) is also improving but is still inferior to that of most "point and shoot" film cameras, but there is a growing consumer market prepared to put up with slightly grainy shots for the greater convenience of digital technology.

The big advantage of a digital camera is instant results. Click the shutter and the digital image can be downloaded to a computer – or uploaded to a Web site – in a matter of seconds.

Using image editing software, which is bundled with many cameras, the image can be manipulated and then printed on one of the new generation of low-cost photo ink-jet printers. Unlike traditional ink-jet printers, these printers are optimised for digital photography with special paper and inks that attempt to mimic the resolution and colour depth of traditional photography.

Last month, Lexmark launched in the US a line of photo printers, priced from $400 (£247), that uses a six-colour ink cartridge to beat the colour limitations of four-colour ink-jet printers.

One of the Lexmark models incorporates software to load images direct from a camera, thus overcoming the biggest hurdle digital cameras face in the consumer market: the traditional dependence on a desktop computer to store, view and print the images.

Nick Mongston, UK marketing manager for digital products at Agfa, says computer users remain the principal target market for digital cameras, though he believes the technology will cross over into the consumer market once an infrastructure is in place that allows users to obtain prints of their digital photos as easily as they can today for photographic film.

To reduce their dependence on a computer, the latest digital cameras, such as Agfa's ePhoto 1280, which costs around £550 ($891) use removable memory cards to store the images. Mr Mongston predicts photo processing laboratories will next year start to install systems to make prints direct from these memory cards. Another option for those without a special printer is to send the digital images for printing using the Internet. Kodak has developed such a service, called the Kodak Print Network. For $4.95 a month, consumers can upload their images to a Kodak web site, from where they can be e-mailed to friends – or printed by Kodak on higher quality paper and at a higher resolution than a standard ink-jet printer allows.

Kodak recognises few consumers have digital cameras and so KPN is being mainly marketed as an option that retailers can offer when a film is dropped off for processing. Kodak will scan the film and mount the digital images on the KPN web site in addition to developing the film as conventional photographic prints.

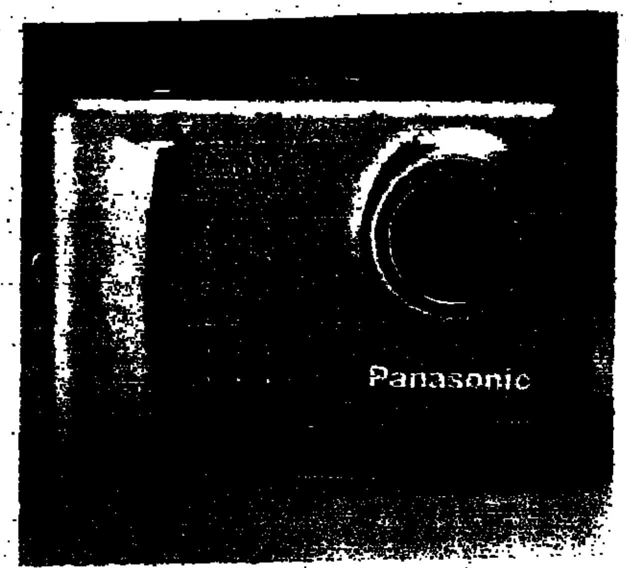
As with many recent digital cameras, Agfa's ePhoto 1280 incorporates a small LCD screen that allows images to be previewed and, if necessary, deleted from the memory card, thus allowing the user to only print (and pay for) those photos he or she wants – a great advantage over film.

To consumers, Agfa is perhaps best-known for photographic film. Mr Mongston admits the arrival of digital photography caused uneasiness within the company. "There was a feeling of uncertainty about how to approach the new digital market and keep in the film-based market," he says.

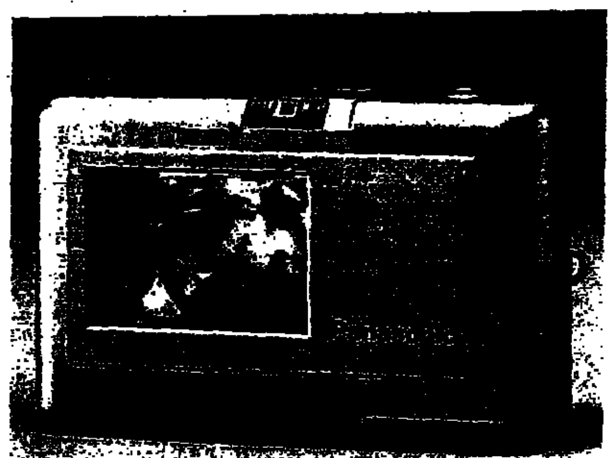
Nevertheless, the company claims it is now fully committed to digital technology and the biggest problem it faces is the intense competition in this fledgling market. The US research company, Dataquest, forecasts the worldwide market for digital still cameras will reach 5.9m units by 2000, but it cautions that the market is not likely to become the consumer bonanza – that many manufacturers hope – before the end of the century.

To get there, prices must fall and quality improve, Dataquest believes. And for the next three years the digital camera will continue to be used mainly as a computer peripheral, rather than as a stand-alone consumer product.

□ *Pictured, right: Panasonic's new digital still camera, the tiny NVDC 1000B, costs around £450 and can record 94 pictures in normal mode, or 16 pictures in higher-quality shots which can be downloaded to a PC via a supplied docking station. The camera offers automatic playback, enabling users to instantly view each shot on a 1.8in LCD screen*



Hardly bigger than a credit card: front and back views of the new Panasonic digital still camera, claimed to be world's smallest.



DIGITAL IMAGES • By Michael Prochak

Wizardry with multitude of applications

The use of computer generated images now goes far beyond Hollywood

In recent years, computer generated imaging and digital effects have become a kind of poetry in an otherwise prosaic and mundane IT world. Hollywood blockbusters such as *Jurassic Park*, *Men In Black*, *The Fifth Element* and *Event Horizon* are just some of the more recent examples of the exponential growth in the use of computer graphics and digital imaging.

Digital magic is becoming increasingly commonplace and audiences expect a greater sense of amazement with each new release. Where producers and designers used to say that computer generated effects were something they couldn't afford to use, today the view is that they simply cannot afford not to use them.

"As the result of recent advancements in computer animation and imaging," says Jim Morris, president of Lucas Digital, "writers have been inspired to invent more characters and stories that utilise digital technology. Film makers are no longer satisfied unless tornadoes, dinosaurs and space ships look so real that they become characters in and of themselves."

Computer generated imaging is now big business, thanks to a range of mergers, acquisitions, multi-million dollar deals and large development teams pushing the boundaries of digital technology.

Since 1993, the industry has become a blur of shifting personalities, companies and alliances which began with Wavefront's acquisition of Thomson Digital Image (TDI) from IBM. A year later, things accelerated with the sale of Softimage to Microsoft, another good example of how Bill Gates is buying the digital market. Silicon Graphics followed suit by snapping up Alias and Wavefront, the two biggest software developers for SGI hardware.

Rapid technological advances driving this market have meant that developments such as the Pentium processor and the release of Windows NT have made the desktop PC a viable contender in the power-hungry graphics market. This has also created a genuine threat to existing and more expensive "black box" market leaders such as Quantel and Silicon Graphics.

While SGI remains the Hollywood favourite and is still perceived as having superior processing power, Intel based NT workstations are now looking more and more impressive when it comes to relative price/performance levels.

NT is rapidly being perceived as good enough technically for nearly all types of CGI work and even SGI have recently announced an NT platform port for key application software which shows not only their concern about backing the right operating system, but also their increasing confidence in the NT platform itself.

The clear message from all of these trends is that sophisticated computer generated imaging is no longer the exclusive province of large "black box" effects houses such as Industrial Light and Magic or Digital Domain and that the industry is maturing so that almost any size organisation can create clever 3D wizardry for less and less money.

According to Josh Rose, executive vice president of VisionArt and visual effects producer for Independence Day, NT is becoming a serious contender and has already begun to give SGI a few headaches.

"As far as the industry shifting to NT, I think it's definitely going to happen," says Mr Rose. "Whether or not it moves to the likes of the DEC platform where prices are almost the same as SGI and there's a lot of questions as to why you should do it, there are other NT products where say you can get a Softimage licence on a box for $15,000. Now that would be extremely exciting. People who are already using Softimage on SGI are looking at what it can do on NT and that, in turn, opens up a whole new way of thinking.

"Low-end systems have already been doing TV work for some time now and it's getting to the point where the Intel processor speed is fast enough and in some cases, faster then SGI systems at a much lower cost."

But while Hollywood may grab the headlines, computer generated imaging is now widely used for a vast array of applications in a whole range of businesses.

TV and advertising companies, where computer-generated animation is a mainstay for station 'idents', trailers, adverts and title sequences, can now match Hollywood effect for effects. Recent adverts – for example, the Ford Puma promotion – have digitally resurrected dead actors such as Steve McQueen who was then able to 'star' in a Bullitt-like remake which included live film shot in San Francisco and CG effects created by London-based post-house Rushes.

Outside the world of film and television, scientists have used computer imaging and animation for years in a variety of disciplines from molecular modelling to physical simulation, and now medicine is a high growth area as surgeons explore surgical procedures on computer-modelled patients. Architects have also become big

Continued on facing page

HOLLYWOOD: THE SPECIAL EFFECTS INDUSTRY

Apple stars in Batman movie

Time and money are saved by creating images on Macintosh computers

Apple Computer has faced problems in expanding its market share for the Macintosh platform, but it enjoys a large market share in key markets such as digital video production and its systems are still favourites among many professionals working on Hollywood movies.

Macintosh systems were instrumental in creating many of the computer-based special effects in the recent Hollywood movie *Batman and Robin* and in many other areas related to the film, such as set design and co-ordinating the work of many different movie production specialists.

Hollywood special effects artists made extensive use of the Macintosh's ability to quickly generate digital graphics using standard graphics and video software applications, which are then integrated into the movie.

With key Apple technologies such as QuickTime, the video editing and playbook software, plus other Apple technologies – such as ColorSync, which ensures that colour matching is consistent across different applications, and AppleScript, which automates many repetitive tasks – Hollywood special effects artists created some memorable scenes for the movie.

"We believe more Mac systems were used in *Batman and Robin*, in more unique ways, than in any production ever before," says Guerrino DeLuca, executive vice president of Worldwide Marketing for Apple. "We're delighted that *Batman and Robin* has made such extensive use of Apple products and solutions in the film industry workflow – both to add value to the film's creative potential and to save money and time in production."

Liz Radley, computer graphics supervisor on the production, says: "We had an insatiable appetite for the Mac. No one wanted another platform unless they were already committed to that platform. There were dozens of new converts to Macintosh during the production."

The Macintosh platform not only provided the producers of the film with a powerful system that could render high definition digital special effects but it was also very useful in defining and ensuring that the film kept to a specific image style. The producers created a series of "style guides" that acted as templates for each shot, and also made sure that colours were consistent for each scene. The style guides ensured that people working on various aspects of the movie would generate consistent and comparable images.

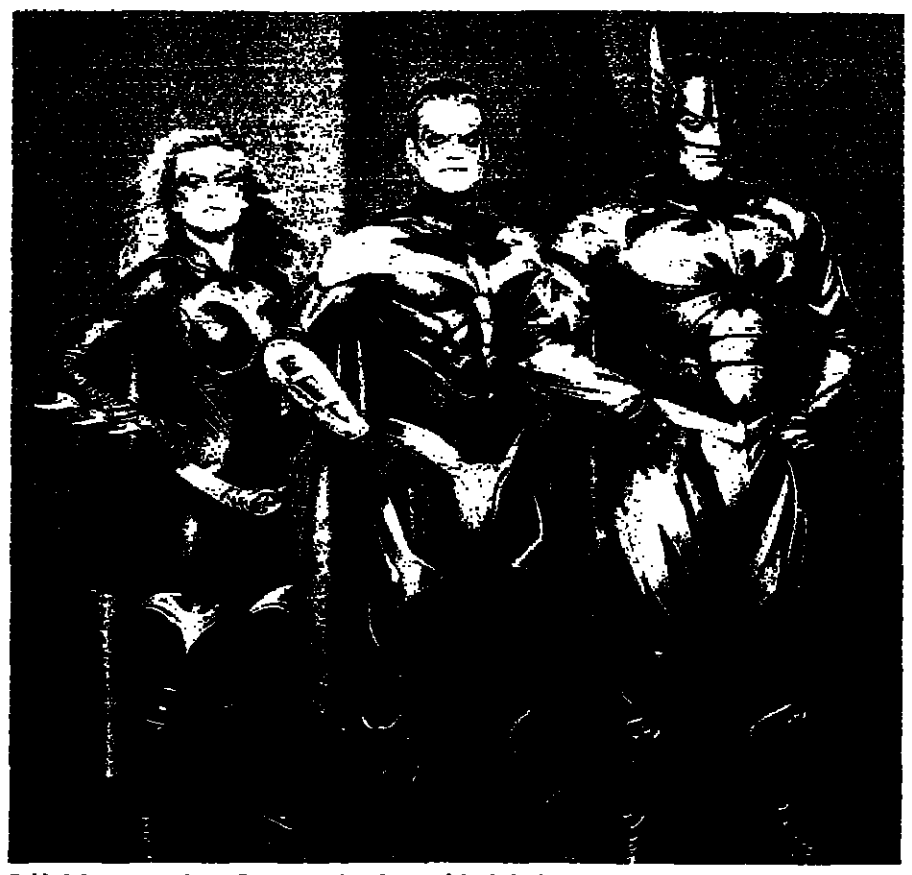
"With the Mac, I could send an image to someone across town and be able to discuss it within minutes – instead of the hours it used to take. This streamlined the communication process and made it much easier to keep things flowing," says the film's director, Joel Schumacher.

Production designer Barbara Ling used Macintosh computers to design sets and create some of the environments seen in the movie. She said that this made it possible to plan complex shots and save money because this work could be done in-house.

The producers also hired a dozen third-party special effects companies to complement their in-house efforts. Many of these special effects companies also use Macintosh computers, and those that use different hardware platforms, were able to import and export images to the Macintosh platform.

Apple is working hard to support the community of Macintosh video production professionals and recently demonstrated a new version of QuickTime.

"QuickTime 3 can support real-time digital effects and we are working with other software developers to integrate QuickTime more closely with major image production tools," said Apple interim-CEO, Steve Jobs at a recent computer conference in San Francisco. In *Batman and Robin*, Apple computers also had supporting roles. Batman and Robin are seen using the portable Apple 'eMate 300' and the futuristic-looking Twentieth Anniversary Macintosh.



Behind the scenes, Apple Computer played a crucial role in the success of 'Batman and Robin'

DIGITAL SOUND • By Michael Prochak

A new wave of music delivery

Computer-based digital systems have become the mainstay of home studios and professional producers alike

The world of digital sound has come a long way since early analogue synthesisers of the late 1960s. Today, most desktop PCs are capable of reproducing CD-quality sound or working in conjunction with a burgeoning range of digital audio and sampling technology which includes products such as digital hard disk recorders, digital sampling instruments, digital sample players/synthesisers and audio device controllers.

Old standards such as Midi (Musical Instrument Digital Interface), a hardware/software protocol that allows computer-based musical instruments to exchange data concerning music parameters, are facing competition from new technologies such as Firewire, an interface standard developed by Apple offering better bandwidth and accessibility for digitally transferring music and sound.

Despite its recent financial problems, Apple's Macintosh is still the favoured computer within the music industry for all aspects of digital audio production.

Leading studios in the UK such as Abbey Road have installed Power Macintosh systems and composers such as Michael Kamen work exclusively on Macs with software such as Performer and Digital Performer by Mark of the Unicorn.

In a musical career that is as celebrated as it is multi-faceted, Mr Kamen has distinguished himself as orchestrater, composer, conductor and collaborator, working with everyone from Pavarotti to Dylan.

"The ability of my Midi-based synthesisers to 'speak' to my computer via musical software makes it possible for me to play music, see it as musical notation, work on it as if it were paper and pencil on the screen, position it to fall precisely where it needs to be 'in sync' to a film, play it back and adjust it at will, add orchestration, record it in real audio or Midi (maintaining synchronisation all the while), playing it for a director, trying out his new ideas and being able to revert to my original after demonstrating that I had it right all along," says Mr Kamen.

Opportunities

Home recording has become one of the fastest-growing industries in the music community. As with the effect digital video has had on the TV industry, cheaper and more powerful audio systems offer composers and musicians more direct control over the creative process and have made them less dependent on large studios, engineers and producers.

Four-track MiniDisk recorders are almost as cheap as four-track cassette recorders were a few years ago and can now double as a mix-down deck, providing many aspiring bands with the ability to produce professional-quality demos, if not complete albums. And computer-based digital studios providing 16-track mixers, hard disk recording and unlimited audio effects have become the mainstay of home studios and professional producers alike.

Paul Raymond, lecturer in Music Technology at Weston College, says: "The future of music is going to be hard disk recording which uses the computer for everything. Not just for sequencing, but also recording. Real instruments can now be recorded directly into the computer and manipulated as if they were standard Midi.

"Programs such as Cubase Audio VST (virtual studio technology) allows you to add effects usually found in the studio directly."

Controlling the entire audio production cycle has now been extended to controlling the means of distribution, thanks to the Internet and a new product called Liquid Audio.

Just as digital audio technology has revolutionised the way composers and musicians work and record, online technologies such as Liquid Audio could allow consumers to mix their own CDs and buy music directly from the artists themselves via the Internet.

Liquid Audio's Liquid MusicPlayer for Windows '95/NT or Mac OS provides a media-rich musical experience which allows users to view art, lyrics and credits as well as production, agency and copyright information while listening to high-fidelity music on the Internet.

In addition to the media browsing features, the free Liquid MusicPlayer makes it simple to download true CD-quality Dolby Digital encoded songs, or point to ordering information to add the disc to your home collection.

LiquifierPro provides a professional mastering environment to optimally prepare audio for Internet delivery using Liquid Audio's Internet-enabled version of Dolby Digital technology.

Liquifier features include waveform editing, high quality format conversion, world class sample rate conversion and fluid 'single-click' upload to website and database. A comprehensive preview function allows users to easily hear the Internet audio at all modem speeds before processing them.

As for copyright concerns, Liquid Audio has developed a data-encoding technology called digital watermarking to protect intellectual property rights. The copyright information is encoded into the music, without compromising the quality of sound, and follows the recording whenever it is copied.

Liquid Audio's technology has already been embraced by artists such as George Michael and Duran Duran who recently used Abbey Road studios to download their forthcoming single 'Electric Barbarella' from their Liquid Audio Internet site.

According to Scott Campbell of MediaSpec, Liquid Audio's UK distributor, the

Continued on page 7

The successful feature film, Men in Black – from Sony Pictures – used digital special effects that took more than a year to complete. Lucas's Industrial Light and Magic made extensive use of Avid Matador software to seamlessly match live action and computer graphics in post-production work. Avid's European headquarters is based at Pinewood Studios, Buckinghamshire

DIGITAL IMAGES

High levels of realism

From facing page:

users of the technology, for creating fly-bys and 3D walkthroughs of proposed projects.

Less obviously, lawyers are exploiting "forensic" computer animations and graphics in a variety of ways, such as recreating accidents or walking juries through crime scenes. In the corporate market, applications for computer animation and imaging now includes animated "manuals" for cars, aircraft and other machines, as well as training aids.

Companies such as UK-based Colt Virtual Reality are even using advanced PC-based graphic systems to create cost-effective and accessible virtual training scenarios for the fire service.

As technology improves and CGI becomes more commonplace, the real magic is often not just the awesome effects that viewers enjoy, but many other illusions that audiences do not see.

Much of the real day-to-day work done by special effects houses involves what could loosely be described as 'salvage work'. This can include services such as the removal of unwanted objects, tidying up errors in shots, matching lighting effects or backgrounds or creating 2D or 3D backgrounds to complement live action.

CGI has actually begun to save money in production costs with replication techniques that can create "flocks" of alien spaceships or fighter planes or make a small crowd of real actors look like thousands. Stunts are also becoming more elaborate because the ability to digitally remove objects from shots means that thin, difficult to see safety wires can now be replaced by heavier cables or more robust supports.

"The really clever stuff," says Mr Rose, "is going to be the stuff that you don't even see. What's really salutary for me is that we worked on a film project called *Alaska* from Columbia/Castle Rock, directed by Fraser Heston. It's a film that the majority of the audience wouldn't believe even had any computer graphic (CG) effects.

"In reality, there are more than 90 CG shots and to me, that's the sort of stuff that's *really* exciting. We're doing some very organic things, saving or salvaging location-based footage, or even making it possible not to have to go to a location, by using photo-realistic CG. It's nice to have people look at your work and have no idea that you worked on it."

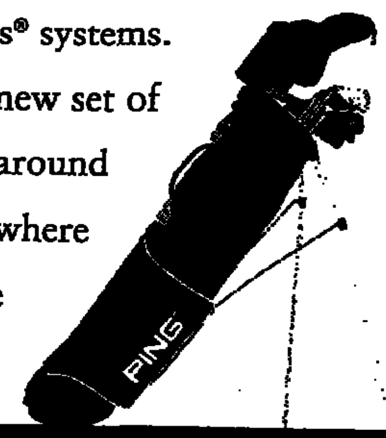
He believes we will see a greater use of technologies that create characters with real human-like movements and characteristics, thus creating computer-generated actors. "You're also going to see compositing and the use of digital actors going to new levels. And that will be really amazing."

Found a sweeter spot for people to play.

It's that moment of insight when remarkable things happen.

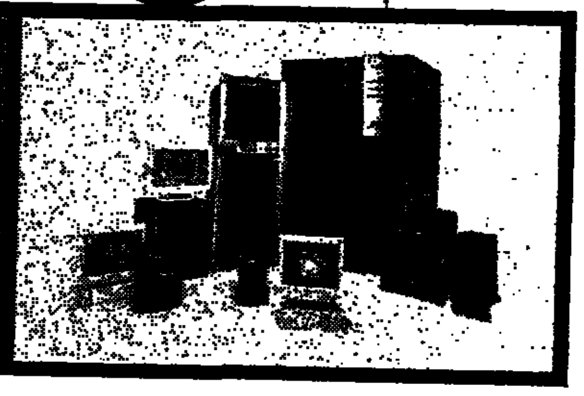
For example, take the makers of Ping® golf equipment. Karsten Manufacturing was taking years to design a new set of Ping irons. That's twelve irons. That's one at a time. That's way too long. Then, they began developing and testing their designs on high-performance Silicon Graphics® systems.

Less than a year later, a new set of Ping clubs shipped to stores around the world. And golfers everywhere found one more thing to love about the game.



PING

www.sgi.co.uk



It's just one example of what people do with Silicon Graphics' systems – collaboration with better results in less time. And whether you work alone or in a group, Silicon Graphics provides you with the freedom to do things you can't with any other computers. To see new and more informative data. To look deeper within yourself for better answers.

People in practically every industry, in nearly every corner of the world use Silicon Graphics workstations and servers in manufacturing, science, government, telecom and entertainment. They are the people whose insights turn the ordinary into the extraordinary.

If you need more proof, stop by your local driving range. That little pinging you hear is the result of better clubs getting to market in half the time.

To find out more about Silicon Graphics, visit our web site or telephone 07000 SILICON (745426) quoting reference Ping.

SiliconGraphics
Computer Systems

DIGITAL PRINTING • By Geoffrey Nairn

A lively market emerges for rapid print-on-demand

There is big interest in short-run colour printing from all-digital commercial presses


Digital systems have transformed pre-press operations and give printers greater flexibility to handle 'just-in-time' jobs

The smell of ink and clatter of presses have been with the printing industry since the days of Gutenberg, but digital technology is rapidly extending its grip across the printing process and even the traditional printing press is no longer sacred, as high-speed digital presses can provide a quicker and cheaper alternative.

Digital technology has already revolutionised the "pre-press" stages of printing and today most books, magazines and newspapers are prepared electronically. Only when the publication is complete and ready to be printed are the pages converted from digital form to photographic film, which is then used to create the printing plates for the presses.

This pre-press revolution has been made possible by the advanced power and graphics capabilities of desktop computers, and the invention of PostScript, a "page description language" that allows computers to communicate with all types of printers and photo-typesetters – the machines that produce the film.

Adobe Computer developed PostScript over a decade ago and it has become a standard within the printing industry. Adobe claims 75 per cent of all commercial publications are printed using PostScript. The latest version of the software, Postscript 3, has been updated for the Internet age with an option called WebReady Printing.

Businesses can use the Internet or internal intranets to send PostScript files for printing in a different office – or different country. The digital revolution is now moving beyond pre-press to the printing press itself, thanks to new digital presses that do not use ink but instead have a laser printing "engine" similar to that in an office laser printer.

There the resemblance ends, however, for digital presses are designed for high-speed continuous throughput and some models can handle rolls of paper, or "webs", just like traditional web offset presses.

Offset printing has been the mainstay of the printing industry for most of this century. Offset presses produce high quality output and for print runs of about 2,000 copies or more are highly cost effective. But the presses are expensive and have high set-up costs due to the time spent making the film and plates and adjusting the press.

Printers usually insist on a minimum print-run of several thousand copies to spread this set-up cost over a greater number of prints and so reduce the cost of each copy. But to meet the minimum requirement, customers may be forced to order more copies than they need and store the surplus, hoping they may be useful later.

Printing experts estimate 15 per cent of all printed material is thrown away before it is ever used because it has become outdated, while 30 per cent is used even though it is outdated because of the high cost of updating and reprinting. The drawbacks of offset printing are particularly apparent in publications that are needed urgently or in small numbers, or whose contents frequently change.

For these applications, digital presses are ideal because they have no set-up costs – the per-copy cost remains the same whether one or thousands copies are printed.

"There is a whole new growing market in print-on-demand," says Barry Porter, UK marketing manager for Océ Printing Systems, a leading supplier of digital printing equipment. An example is short-run book publishing. When a book goes out of print, the need for a minimum print run on a traditional offset press makes it difficult to justify reprinting.

Academic journals are another area that could benefit from digital printing, because the economies of scale of offset printing discriminate against specialist publications with small print runs. One fast-growing application for digital printing is technical manuals. High-tech products are continually evolving and their manuals need frequent updating to reflect design changes.

With digital printing, the documentation can be kept up-to-date and manuals printed in smaller batches more frequently. Microsoft uses digital printing to produce training manuals as does Siemens for the manuals of domestic appliances.

Océ recently launched its DemandStream 8000, a web-fed digital printer aimed squarely at these type of applications. The system can print 500 copies of a 288-page book in just four hours with a resolution of 600 dots per inch – equivalent to a good office laser printer. For most applications, the quality is acceptable, Mr Porter argues, though he accepts that a good offset press can achieve higher quality.

"The problem is that most offset presses are not set up correctly and so you don't get the best quality," he argues. Océ sees digital presses complementing rather than threatening the offset printing industry. A high-speed digital press costs less than £500,000 – around a tenth the cost of a new offset press – and it gives commercial printers greater flexibility to handle short runs and "just in time" printing jobs.

"The offset industry often has to turn work down because it's not cost-effective for them," says Mr Porter. The next area to be transformed by digital technology will be colour printing and analysts say "on demand" colour printing is the fastest growing segment of the industry.

The latest computer-to-plate systems, from vendors such as Heidelberg and Agfa, help colour printers to turn round work quicker and reduce set-up costs.

The systems take a PostScript file and generate the printing plate without having to first go through photographic film. But the biggest advance in short-run colour printing is coming from all-digital colour presses which use colour xerographic technology to eliminate the need for printing plates and coloured inks all together.

The first such presses are entering the market and their makers claim they allow commercial printers to turn round four-colour print jobs within hours rather than days or weeks.

CASE STUDY Printing-on-demand at Cadbury-Schweppes – report by Joia Shillingford

Productivity doubled at design studio


A fast and flexible route to printing-on-demand give better control of production budgets for promotional materials

The design studio of Cadbury-Schweppes – the UK drinks and confectionary group – first became interested in printing-on-demand when the pace of business accelerated throughout the group in the mid-1990s: it needed to show colour print-outs of proposed visuals to marketing and sales departments without the delay of getting colour separations produced.

"We looked at the Xerox DocuColour machine," says Gordon Harper, senior design group head at Cadbury. "We wanted this system because it gave truer colour than other colour printers on the market and printed at 40 pages a minute."

The machine was installed in January 1996 and has enabled the studio to double its output. Its turnover is approaching £[illegible]m a year and it will produce 600,000 to a million laser copies this year, as compared with 400,000 last year. The benefits of the system include cost-savings, greater flexibility and control: "Short print-runs at full colour are cost-effective," says Mr Harper.

To remain economic, conventional print-runs need to be at least 500 or 600 copies so that costs of setting up the machine can be spread. Now the studio says: "You can have one or a thousand copies. And extra copies are easy to produce.

If a department comes back and asks for another 10 copies, that's no problem. "We keep digital files of all the jobs we've done in our archive," he says.

Changing work at the last minute is possible, too. "Instead of abandoning expensive artwork, you can drop in another picture or change text within minutes."

Producing the finished product is quick, too: a newsletter print-run of 300 to 500 copies would take minutes to send to the machine and a couple of hours to print. "It's not like setting up a printing machine with plates," says Mr Harper.

The machine is not competitive on large print runs of, say, 8,000 to 10,000 copies. However, he tells customers: "You have to think about your business differently . . . a few years ago, when the customer wanted 500 copies, the printer would say: 'It won't cost you much more for a thousand.' But three weeks' later, the customer might still have half a box left.

"Today, there's no need to have wasted material. You can order 300 promotional leaflets – see how they do, then order more if they're successful. Budgeting is easier, too, because if you order small quantities, you can pay as you go."

Ninety per cent of the studio's work is now done on the DocuColour. This was not possible a year ago. "We had Canon 700 machines that weren't quite colour-correct," he recalls. "Now we can colour-correct the DocuColour as it prints out. With the Canon, if we had problems, we had to call in technicians, and while they were here, we couldn't use the machine."

Cadbury uses a Splash Rip (a 'raster image processor') in conjunction with the DocuColour to give smooth colour gradations and clearer reversed-out copy against a background. The Splash Rip is a computer server which sits on the same network as the Xerox machine.

As well as producing sales leaflets, shelf-strips and other promotional items, the DocuColour is used to print Cadbury's 'Great Ideas' newsletter which is distributed internally to the US, Australia and elsewhere.

Cadbury-Schweppes' brands in Europe, India, Africa and South America can all use the Bourneville, UK-based studio, if they wish. However, Mr Harper says demand for its services has increased "because the studio is very well-equipped and price-competitive". It has 30 or 40 staff, including an audio-visual department with editing suites.

Cadbury leases the DocuColour 40 and Splash Rips from Xerox. It does not believe in buying outright because its requirements – and the technology available – is changing so fast. It also has three nine-pages-a-minute Xerox Regal colour copier / printers on its network.

The list price for the DocuColour is £95,000. Leases usually run for five years, with the recommended price for a configuration such as Cadbury's (apart from the Regals) costing £5,000 a month, including a SplashRIP and 30,000 copies a month. Additional copies are charged at five pence each. Discounts are available on multiple purchases.

Cadbury is planning to order a second DocuColour system, although there are some colour effects that the machine just cannot create – such as the colour 'gold' – which Cadbury uses a lot for some Cadbury-Schweppes brands.

The company would also like the machine to operate a little faster, so the studio could increase its throughput – conventional printing machines print at about 9,000 pages an hour. And the studio would like to be able to print on a wider variety of paper weights, including card.

Nevertheless, the machine can also be used for some purposes the studio had not originally envisaged. "We have two digital cameras and are now printing pictures from them directly on to the DocuColour," he says.

This is about a third cheaper than conventional colour (film) processing and is far more environmentally friendly because the studio does not need to use the chemicals involved in 'wet-and-soggy' photo-processing.

"We're going to sell our colour (film) processing machine," says Mr Harper. "Most people are going the digital way."

DIGITAL SOUND

Good news for music fans

From page 5:


Pop star George Michael says Liquid Audio is helping to 'revolutionise the delivery of music' Picture by Nick Knight

Electric Barbarella Internet mix signifies a new wave of music delivery. "Consumers who have Internet access can listen to the track and purchase the single over the Net. The reality Duran Duran have brought home with this promotion is that this technology is here today," he says.

Explaining his own company, Aegean Records' interest in Liquid Audio, George Michael says: "As a musician, I feel that my audience will only fully embrace the Internet when it gives them the level and speed of quality that they are accustomed to. I feel our partnership with Liquid Audio will be our first step in revolutionising how we, and ultimately the music industry, deliver music to fans."

Danny Johnson, the creative director of Internet Underground Music Archive (IUMA), says Liquid Audio's streaming capability, extensive audiophile sound controls in the encoder, and an interface that is more artist-friendly than Liquid Audio's primary competitor, RealAudio, could radically change music distribution and buying methods. Liquid Audio allows more information – such as band background and contact numbers – to be delivered with the sound files, says Mr Johnson.

Later versions of the software will allow users to listen to a group of songs at a lower bandwidth, and decide whether to download and buy a high-bandwidth, hi-fi version. "We're always pushing for ways that enable musicians to make a living outside of the big music industry. Liquid Audio is one step closer," he says.

DIGITAL TV DEVELOPMENTS • By Michael Wiltshire

UK 'poised for a global lead'

After a troubled start in the US, the race is on to re-invent TV for the millennium

The average person's perception of all things digital is of nifty new gadgets and clever toys, says John Kavanagh, media industry director at the IT consultancy, Cap Gemini. "But in the media industry, digital technology is bringing a revolution – and like all revolutions, there will be winners and losers."

Mr Kavanagh is already deeply involved in next year's launch of digital and interactive television in the UK, expected to give viewers new services and dozens more channels by autumn 1998.

His company, Cap Gemini, is providing strategic consultancy, specialist IT skills and outsourcing services to organisations pioneering the changes – UK companies such as British Interactive Broadcasting (BIB), Carlton TV and BSkyB, and to broadcasters across Europe, such as Canal Plus.

Achieving the target launch dates is, he says, a big challenge in terms of integrating many new technologies and in building what amounts to a whole new business from scratch.

"With less than a year to go, it's time to take the anoraks off and get down to business. The schedule is tough, but if we succeed, the UK will have jumped ahead of the US in commercial exploitation of digital technology in television," reckons Mr Kavanagh – who, incidentally, is not to be confused with another John Kavanagh, who writes regularly for the FT-IT Review.

At Cap Gemini, Mr Kavanagh points out that "the Americans have gone off interactive after several costly gaffs. We in Britain now have the chance to get it right and show the world that the country that invented television in the first place can re-invent it for the millennium."

Sam Chisholm, chairman of BIB, agrees with Mr Kavanagh's upbeat views. While his ambitious launch schedule is a challenge, he emphasises that "the range of interactive services on offer will make BIB very attractive to subscribers." And BIB points out that "the new venture will open up the information age to the television viewer – not just for the PC-user."

Exciting as new types of TV channel might be, it is in the field of content management – the exploitation and re-use of creative content across different media, and the efficient creation and management of new content – that the digital transformation is set to deliver the most lucrative commercial opportunities, according to Mr Kavanagh.

Big potential

He believes that many broadcasters, publishers and producers could multiply their revenues from new and existing material if they fully embraced digital technology. Significantly, the Cap Gemini Group has just won a big contract from the European Commission to develop "recommendations for medium and long-term strategies and EU policy actions in support of the multimedia content industry during the period 1998-2003."

The study will include film, video, broadcast and print media and seems certain to influence EC policy-making profoundly. There is a new determination not to get left behind by the growth of US power brands.

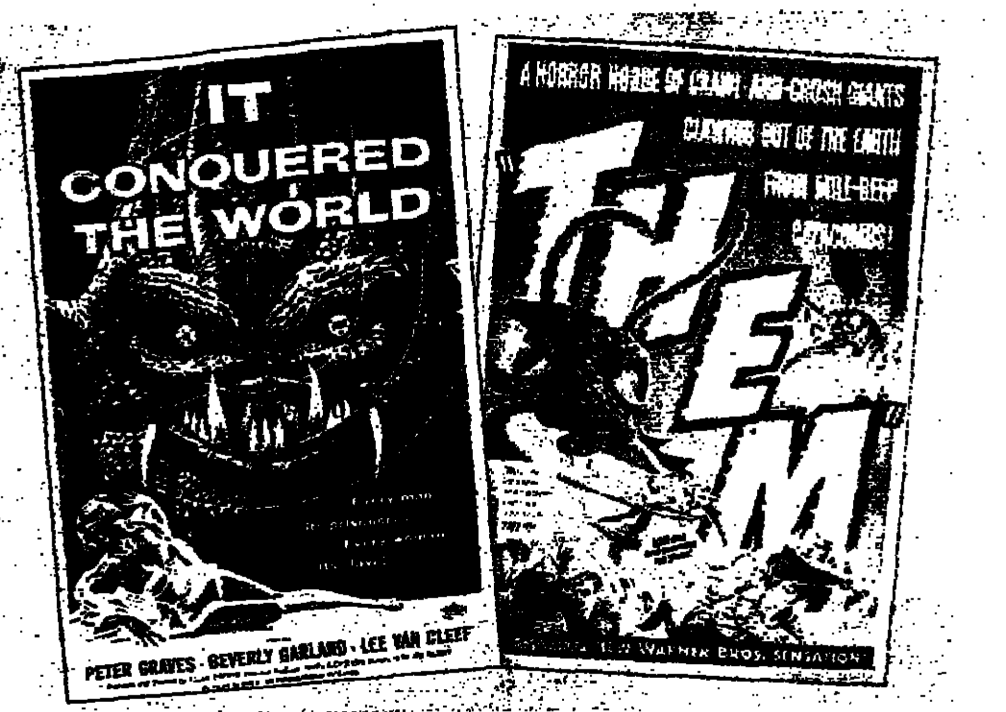
"There is no doubt that Europe is now ahead of the US in the race to deliver digital broadcasting to the public," says Mr Kavanagh. "But the real challenge is to exploit that lead to develop products and services that meet consumer needs."

Mr Kavanagh is also keen to point out that developments such as interactive TV will bring media companies into ever closer contact with consumer tastes and preferences, and that intensified competition will force the industry to focus on building consumer loyalty.

"Surprising though it may seem: to a lot of media companies, the consumer is an unknown – an alien," says Mr Kavanagh, who likes to use imagery from 1950s science-fiction films at meetings and conferences to dramatise the point.

In order to capture market-share in a world of cable, satellite, digital terrestrial and interactive services, media companies must, he says, break with the broadcasting tradition of "we know what's good for you" and start learning what these alien consumers will really need and expect from the new services.

Perhaps Mr Kavanagh's sci-fi posters also remind us how little is really known about the new – and in many ways alien – digital world.



Science-fiction film posters of the 1950s – but today, many media companies still regard the consumer as 'an unknown . . . an alien,' says John Kavanagh, media industry director of Cap Gemini

WEB-CASTING • By Geoffrey Wheelwright

Dawn of personal broadcasting services

With new video and audio 'streaming' technologies, anyone can air their work on the World Wide Web

If high technology venture capitalists – and Microsoft, the world's leading software supplier – had been around in the days when television and radio were being invented, the world of broadcasting would have turned out vastly different from today. A quick look at the market for new video and audio streaming products gives an idea of how it might have developed – since these two types of solutions are virtually turning into the TV and radio of the wired world.

Whichever products dominate in this sector could end up determining the evolution of both media – and they are doing so in a vastly different environment than those faced by traditional radio and TV broadcasting systems. There is no allocation of "channels" in cyberspace, no need to bid for coveted space on the radio dial and no need to conform to onerous government guidelines that can dictate everything from what programs may contain or where they must be made.

Anyone with access to good audio or video streaming technology, a web site and a fast, high-bandwidth connection to the Internet can start broadcasting their own version of Internet radio or television. And they can do so without setting up transmission towers or waiting for government licenses or trying to please government regulators.

The only real forces with which they must grapple are those of market economics. While "web-casting" is far cheaper than traditional radio or television, it is not free – and many pioneers in this sector are finding their own ways of trying to win audience-share and advertising dollars (particularly since the former tends to lead to the latter).

Audience-share is probably the most challenging issue at the moment, however. With hundreds, if not thousands, of video and audio "shows" available in cyberspace, the challenge is not to produce or broadcast your work – it is to get people to 'tune in'.

There is also the additional issue of being sure that potential listeners (or viewers) have the technology to hear/see what is being broadcast. Unlike radio or TV, if a "web-caster" chooses a less-popular Internet audio or video streaming technology to make their shows available on the Internet, then the number of Internet users who would potentially be able to hear or see their work, declines dramatically.

It is therefore not surprising that most who want to 'air' their work on the Web appear to be settling for a handful of technologies to do it. Typically, anyone who wants to allow audio to be heard might provide two versions. The first will be one that can be 'downloaded' (this is a large file that must be completely transferred to the local hard disk before it can be used) and, second, one that can be "streamed", so that the file can begin playing audio immediately and will play the audio as it is received, but will not store a copy on the local hard disk.

For longer audio chunks – such as the live web-casting of a concert, speech or news event – streaming is the only option. The question of whose format is used then becomes even more significant – as it invests vast power in the owner of the format. At the moment, that grip is tightened by the fact that the technology is still evolving – so that both users and web-casters have to continually upgrade their software in order to get the best possible quality of audio or video.

By the middle of last month, for example, it appeared that Seattle-based RealNetworks has almost a complete lock on this market. The company – which was, until recently, known as Progressive Networks – has a huge number of TV networks, movie studios and radio stations signed up as keen users of its technology.

The company produces software upgrades every few months to improve it. However, the evolutionary nature of the technology means there is still room for innovators. Solutions are appearing that allow streamed audio and video to be played without requiring users to either have or download special 'player' software.

Chicago-based Vosaic, for example, offers both video and audio streaming over standard web browsers that use the Sun Microsystems' Java programming environment – but which do not require the download of any special software to view or hear Vosaic Webcasts. In July, the company scored a coup by working with Digital Equipment to provide audio and video over the Internet to more than 1m people during the Mars Pathfinder mission.

It was this event that Vosaic used as its first large-scale introduction of video without 'plug-in' software – a technology the company calls Vosaic TV Station. "In a seven-day period, we – along with our partner Digital – delivered video to more than a million people over the Internet all in Java. It could not physically have been done any other way," says Erik Simon, Vosaic marketing manager and one of the principal organisers of the Mars webcast from the Jet Propulsion Laboratory in Pasadena, CA.

The pace of development in streaming technology has not escaped the interest of Microsoft. The company has invested in audio and video streaming pioneers – including California-based VXtreme which it acquired in August; it has invested also in VDOnet and RealNetworks.

In August, these investments drew the attention of the US Department of Justice, which made a "request for information" regarding Microsoft's intentions in the media streaming sector.

Competition in the streaming business is intense, with many companies offering a range of products, said William Neukom, Microsoft's senior vice president for law and corporate affairs at the time the DoJ request for information was made public. "Microsoft is seeking to promote compatibility and interoperability among streaming media products from all vendors, which will benefit customers and further intensify competition. We are confident that the Justice Department will conclude that competition is robust once it reviews the facts."

Meanwhile, Microsoft has since sought the support of other streaming media developers for a standard that it jointly proposed in September. Microsoft joined forces with Progressive Networks, Intel, Adobe Systems and Vivo Software to invite industry comment on the Advanced Streaming Format (ASF) draft specification.

ASF is expected to spur the growth of streaming multimedia by increasing choice of production tools and boosting the number of Internet broadcasts.

Profile of Rob Glaser of RealNetworks:see page 13

• FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY •

FT-IT DIRECTORY INDEX

• FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY • FT-IT DIRECTORY •

FT-IT DIRECTORY INDEX

Page 10

FT-IT DIRECTORY INDEX

Page 11

SATELLITE BROADCASTING • By George Black

Digital radio will be beamed to billions

The AfriStar service will target Africa, the Middle East, southern Asia, central and South America and much of the US

By June 1999 around 4.6bn people worldwide could have access to digital radio programmes broadcast by satellite.

This is one way in which satellites could enable developing countries to overcome the dearth of information caused mainly by the weakness of their telecommunications infrastructure.

The target areas for the project are Africa, the Middle East, southern Asia and central and South America, though the broadcasts may also be received in much of the US and southern Europe.

Thus, people in the developing countries may be users of digital radio before many in the developed world, where it is still in the formative stage, delayed by shortage of bandwidth.

This comes about partly because it is easier and cheaper to launch satellites to beam to the developing regions and partly because political and competitive pressures make it hard to do this for the developed countries.

Digital radio will be transmitted by the AfriStar satellite, due to be launched next June on Ariane 4, an Arianespace rocket, followed by AsiaStar in December and CaribStar in June 1999.

Each satellite will send three beams in overlapping ellipses, each covering 8.75m square miles.

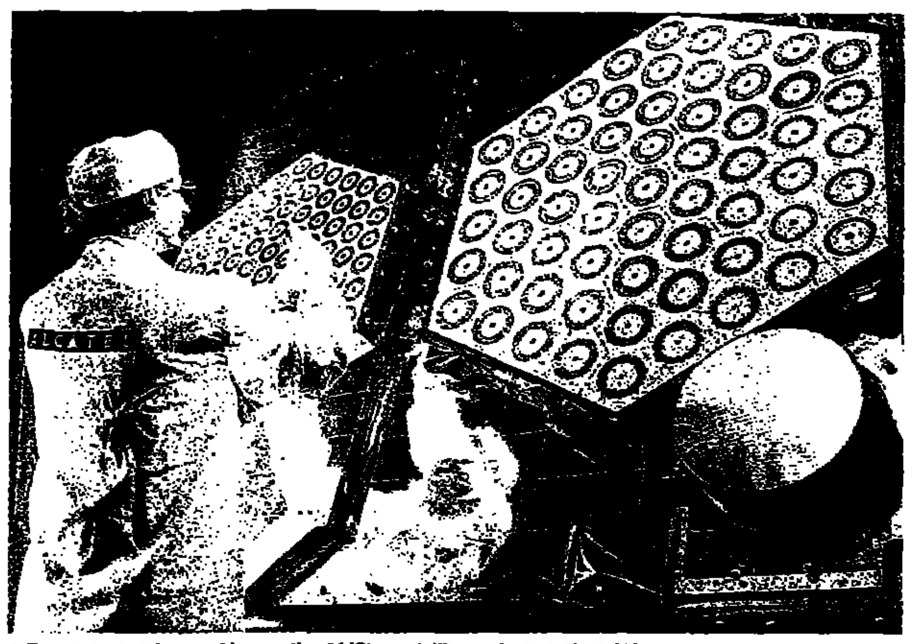
Broadcasters can choose to target one to three of these zones, uplinking their programmes from anywhere within a much larger catchment area.

The project, the first to provide digital radio via satellite and one of the biggest ever undertakings in radio communications, could mark the onset of the long-heralded revolution in digital broadcasting.

It is being organised by Worldspace, a US privately held company with unknown investors – reported to include Saudi Arabian royalty – who have put up $750m.

Worldspace was set up by Noah Samara, a naturalised American born in Ethiopia. A former official of the International Telecommunications Union, he has experience of developing satellite systems but not the business record of competitors such as Rupert Murdoch.

Technology analysts at the Ovum consultancy predict that many consortia planning to launch satellites will fail for lack of financial backing.



A French technician working on the AfriStar satellite project at Alcatel Espace

Mr Samara says he has enough money for his present needs and has not discussed raising more. He says that Worldspace will be in profit by the year 2,000.

The venture is intended to provide around 100 channels from each of the satellites transmitted at 16K bits per second, which can be combined by a bandwidth-on-demand system to create 128K bps channels.

WorldSpace founder, Noah Samara, a naturalised American, was born in Ethiopia. Around 10 per cent of WorldSpace channels are expected to be reserved for humanitarian purposes. Universal access to the service 'will help abolish information poverty' in developing nations, he says

These will be capable of delivering compact disk quality sound and a limited amount of video on the portable receivers. Digital radio produces interference-free sound, using a chip to construct a reliable signal, and requires no delicate tuning.

First-generation radios will have very small liquid crystal display boxes, but second-generation ones are expected to have much larger screens. Rough prototypes of the first models have already been demonstrated.

Digital transmission could allow other services such as text, fax, e-mail and message paging to be added. It is foreseen that the programmes, provided by both national and international broadcasters, will cover a very broad range of information services, education and entertainment.

The radios, equipped with a small flat antenna to receive the signals directly from the satellite, will be made by Japanese manufacturers Hitachi, JVC, Panasonic and Sanyo. They will be fitted with chipsets from SGS-Thomson of Italy and ITT Intermetall of Germany to decode the signals.

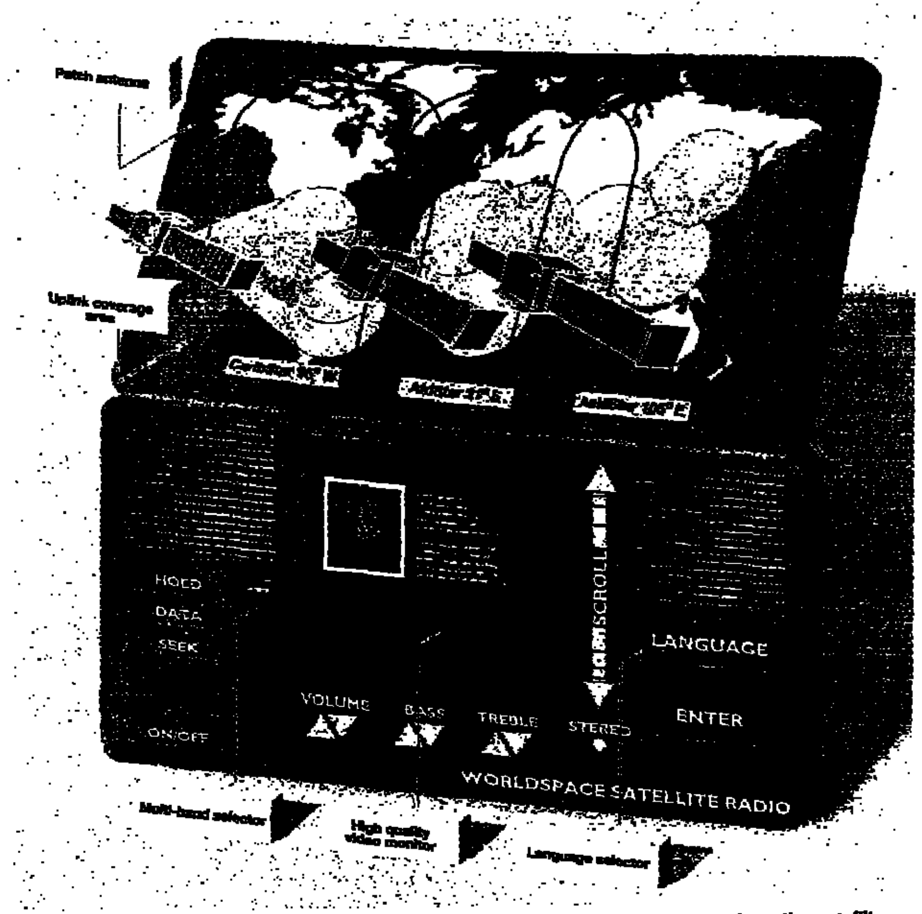
At an initial price of around $200, the radios are aimed mainly at the middle class in the developing countries. However, it is hoped prices will fall quickly as volume increases and they could drop to around $50. Worldspace predicts that 25m radios will be sold in the first five years.

"The aim is to allow universal access to the service," says Mr Samara. "It will abolish 'information poverty'."

A new type of commercial satellite, based on the Eurostar 2000+ but designed to be cheaper and more flexible for broadcasters, is being produced by the Anglo-French company Matra-Marconi Space. The prime contractor and communications payload designer is Alcatel Espace of France.

Each satellite will carry six transponders, transmitting through L-Band amplifiers. Sound from the broadcaster is subjected to digital compression using the MPEG 2.5 Layer 3 coding algorithm and transmitted through a small satellite dish to the satellite in its geostationary orbit 24,000 miles above the Earth.

Programmes will be transmitted from the satellites in 40MHz of the L-Band (1452 to 1492 MHz), the range of spectrum which Worldspace was awarded in 1992. The L-Band is now favoured by most countries over AM and FM as the most suitable for digital radio.



Radio receivers, built in Japan, have a small, flat antenna to receive signals direct from the satellite. Digital radio produces interference-free sound. WorldSpace is keen to add prestigious programmes such as the BBC World Service plus Bloomberg news and information services

Despite a chorus of scepticism from the broadcasting industry when the project began, Worldspace claims the technology has now been proved to work in simulation tests at Alcatel's Toulouse research and development centre.

Only 20 per cent of the capacity has so far been allocated. Bloomberg, the US-based 24-hour news and information service, will take 23 channels to broadcast in six languages.

Worldspace will be keen to add other prestigious users, such as the BBC World Service.

Uncertainty about how the rest of the channels will be distributed has generated speculation that some countries could reject the service as 'too American', while in others governments might seek to exploit it for propaganda.

But around 10 per cent of the Worldspace channels are expected to be reserved for humanitarian purposes, such as improving basic education and literacy and supporting health services.

In April, 17 African ministers of education met Worldspace and gave support to the project. The service could help countries prone to emergencies caused by natural disaster because of digital radio's advantages over short-wave radio of clarity and consistency of reception.

As scepticism about the technology begins to recede, questions about the commercial viability of the project come to the fore.

Mr Samara insists that radio has a great future and has not been obsoleted by television or the Internet. "Radio goes to places where TV doesn't," he says. "There are a billion radios in the developing world, three times more than televisions."

But without any opportunity to conduct market research into the likely demand for the products, the success of the project rests heavily on his vision and his faith.

Work proceeds on the AfriStar satellite at Alcatel Espace. Digital transmission could allow other services such as text, fax, e-mail and message-paging to be added

DIGITAL TV AND NEW MASS MARKETS • By Geoffrey Nairn

The barriers are coming down

While observers claim that 'digital technology is the future of television,' consumer-demand may remain weak until suppliers are able to demonstrate compelling benefits

Digital television could hasten the long-promised convergence of the PC with the TV and create new mass markets for services such as Internet access, digital content and interactive programming. But for this digital dream to happen, the IT and media industries must demonstrate the benefits of digital television to a largely sceptical market.

Digital technology is dismantling the barriers that have traditionally kept IT companies, telephone operators and media companies apart. With the arrival of digital TV this process is likely to accelerate.

"Existing industry structures will be torn apart and new entrants will start up, resulting in additional complexity in the market," predicts a report on digital broadcasting from the UK-based consultancy, Ovum.

For a glimpse of how the new market dynamics may work, look no further than Spain, which has started two digital satellite TV services in 1997. The most recent, Via Digital, was launched in September and achieved over 128,000 subscribers in its first month – a world record, according to the Via Digital consortium, which includes Telefonica, Spain's former telephone monopoly, the state-owned terrestrial broadcaster RTVE and Recoletos, a media group owned by Pearson, publisher of the Financial Times.

Digital technology allows broadcasters to provide a wider range of channels with better picture quality and CD-quality sound. Via Digital plans to offer more than 80 channels, including pay-per-view formats for films and sports – a much greater choice than Spain's four national terrestrial broadcasters can offer.

However, more channels does not necessarily increase demand. In markets with many TV channels, the top four channels typically still take over 70 per cent of all viewing, according to the market research company Euromonitor.

The switch to digital TV is also expensive. Via Digital has spend Pta 4bn (£16m) on technology for its broadcast centre in Madrid that beams digital content up to the Hispasat satellite. Viewers also have to buy new hardware – either a set-top decoder or, in the future, a digital TV. Broadcasters are thus keen to use digital TV to offer higher value services that are not possible with traditional analogue broadcasting, such as pay-per-view programming and interactive services that could include Internet access, banking and ticket reservations.

"Digital technology is the future of television," says Pedro Pérez, chairman of Via Digital. "It multiplies content and makes full interactivity possible, such that the TV will soon become the favourite medium for obtaining information, games, shopping and all types of services."

But these services are today largely non-existent and analysts say consumers are reluctant to spend money on unknown and unproven benefits. "Consumer-demand will remain weak until suppliers are able to demonstrate compelling benefits," says the Ovum report.

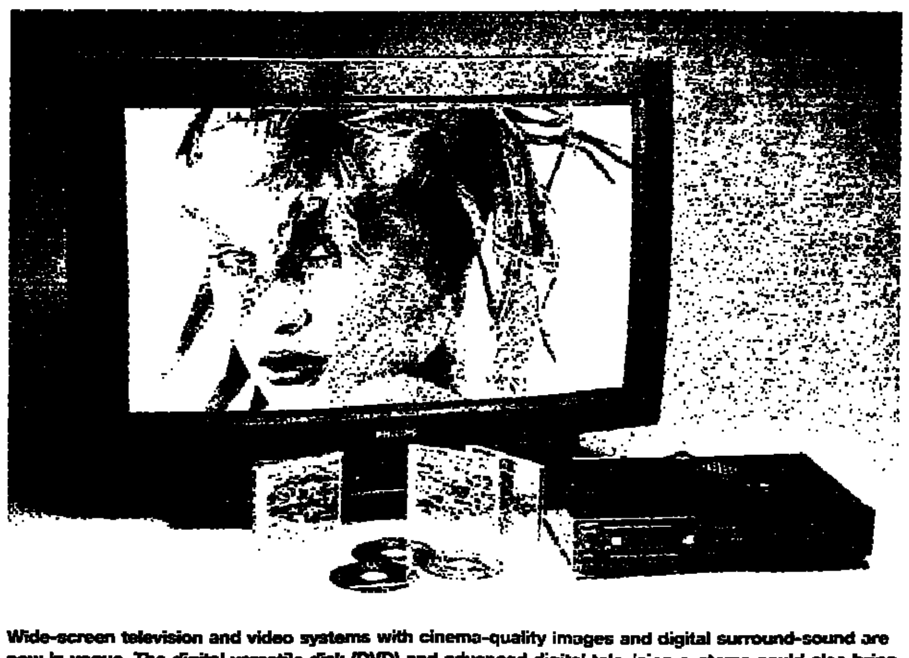
The consultancy estimates it will take at least five years for consumers to warm to the new technology. However, the market will then start to grow rapidly, and in ten years' time, few consumers will complain if analogue television is withdrawn.

Digital TV could bring a new phase of growth to the TV market but it also challenges the telephone and cable companies' plans to deliver multimedia over their networks. Broadcast digital TV allows Internet access providers to bypass bottlenecks on the terrestrial networks and beam bandwidth-hungry Web pages direct to consumers' PCs.

In September, Microsoft announced its WebTV subsidiary was developing a set-top box designed to download Web pages via broadcast digital TV.

Microsoft's digital TV strategy originally hinged on using cable networks to offer high-speed Internet access and so bypass the telephone companies. Its recent $1bn purchase of a stake in Comcast and last month's offer to buy TCI, the largest US cable company, seemed to confirm this view.

But countries such as the UK, Italy and Spain have under-developed cable networks – and elsewhere, cable operators have scaled back plans to upgrade their analogue networks to handle digital content. Ovum predicts analogue cable operators in the UK will start losing subscribers from 2001, initially to digital cable but later and in greater number to digital TV.



Wide-screen television and video systems with cinema-quality images and digital surround-sound are now in vogue. The digital versatile disk (DVD) and advanced digital television systems could also bring a big phase of growth to the home entertainment market

Digital terrestrial broadcasting is due to start in the UK in late 1998 and will become a significant market force in 2001, Ovum believes. Whether digital TV arrives via cable, satellite or a terrestrial broadcast is ultimately irrelevant to most consumers and content providers.

A far more important issue is the hardware that will be used to handle digital TV in consumers' homes. Broadcasters and consumer electronics firms promote digital TV as a better viewing experience with higher resolution images, improved audio and greater choice. They see high-definition digital TV sets ultimately replacing the set-top boxes today needed to received digital signals on an analogue TV.

By contrast, computer manufacturers wants the PC to deliver digital TV, claiming it is better suited to interactive applications and already has the processing power and memory needed to handle digital broadcasts.

Earlier this year, Compaq, Microsoft and Intel formed the DTV Team to promote this vision and develop the technologies needed to make it happen. The group faces several hurdles, however, not least convincing sceptical consumers to spend $2,000 on a device clearly not designed for watching TV.

A very different world: 61 years ago, this Ekco-Scophony TV receiver took pride of place at London's Radiolympia in 1936

"We don't believe most people will choose to watch TV on a small PC screen while sitting at a desk," admits Robert Stearns, Compaq's senior vice president for technology. "But there will be a strong relationship between the future TV appliance and PC technology."

The DTV Team envisages different types of DTV-based PC and TV appliances to address varying consumer needs and budgets, including low-cost devices with a similar price to an analogue TV. But the group's initial focus will be on including DTV capabilities in all new PCs and the first such products are due in late 1998.

WEB TV • By Philip Manchester

A marriage full of promise

Net-enabled television will open up a new world of interactive services

The marriage of computers and telecommunications through the Internet is now well advanced and attention is shifting to a different kind of convergence: the Internet and broadcast media.

Earlier this year, the two main global players in the Internet market – Microsoft and Sun Microsystems – made significant acquisitions and investments beyond their traditional territories. Microsoft bought WebTV for a staggering $425m in cash and stock and invested $1bn in Comcast, the US's fourth largest cable television company. Sun bought Diba, another Web television company and turned it into a new consumer technology group.

Both companies are anxious to occupy and dominate one of the most promising and potentially enormous technology markets of the future – the market that brings traditional broadcast television together with the Internet.

If the projections are correct, almost everyone who has a television today will, in a few years, look at the Internet through a domestic-style television. They will be able to access virtually unlimited 'content' both in the form of traditional Web pages and broadcast digital TV streams from their sofa in the living room and 'interact' with them.

US market analysts at Forrester Research see the market taking off relatively slowly over the next two years and then accelerating after the year 2000.

In the US, for example, it forecasts only 100,000 households will have a 'Net-enabled TV' this year. By the end of 2002, it predicts this number will have grown dramatically – to 14.7m.

"This is the information superhighway – and it is here now," says Chris Marjara, European marketing manager for Scientific Atlanta, a US specialist in the set-top boxes which are required to let a television access the Internet and the World Wide Web.

"We see it opening up many new types of application from videoconferencing and tele-medicine to education – wherever you want to combine TV with text and graphics and interactivity," Mr Marjara continues.

Promising though it is, Web TV is not a straightforward technology, however: there are two main approaches – polarised around either Microsoft or Sun. Simply stated, the Microsoft approach aims to turn the PC into a television. Sun's approach is to turn a standard television into a PC.

It is too early to say which of these two approaches will triumph. Both claim to be based on 'open' standards – although in neither case have these been universally adopted. In August, Microsoft published details of what it calls a Broadcast Architecture – based on the new versions of its Windows operating systems due for release next year. The architecture includes recognised standards such as TCP/IP and Hypertext Mark-up Language (HTML) – the established standards for the Internet. But it also relies on Microsoft's Active X and specifies the Windows operating system software.

> 'Net-enabled TV heralds the information superhighway – and it is here now'

By contrast, Sun has based its software on the Java language and claims it is 'completely open'. But while Java is widely-accepted by most manufacturers, one very significant supplier – Microsoft – is moving away from it, to the point where Sun recently brought a case accusing Microsoft of not honouring its contract.

Meanwhile, there are other issues to be resolved. The transmission infrastructure for carrying TV signals is still uncertain with a choice between cable TV and high-speed telephone lines. Charging tariffs are still not clear – nor is the mass market's willingness to pay for what, at the moment, is a vague promise of the benefits of unlimited number of digital TV channels.

Cable currently seems to offer the best option – at least in markets where it is established. But the advent of low-cost, high-speed ISDN telephone lines could tip the balance back to the telephone system.

Scientific Atlanta is focusing on the traditional cable TV market – mainly because it offers an infrastructure capable of handling the large amounts of data transmission associated with TV. The existing phone network is still not fast enough to produce an acceptable TV signal.

"We are using the cable infrastructure because it has the bandwidth – 1.5 gigabytes a second. It is a great opportunity for cable companies because they can take their core customers and let them get at the Web. There is plenty of content out there already with more than 400,000 developers building Web material," notes Mr Marjara.

It will, however, be some time before the promise of Web TV is converted into revenues for companies such as Microsoft that have committed significant resources to it. When it does happen, it will doubtless send waves way beyond the IT industry:

"I think it is probably about 18 months away. Traditional broadcasters should be worried because Web TV will be different carriage medium to compete with satellite, cable and terrestrial TV. I am not sure that traditional broadcasters will be able to cope with the interactivity. Indeed – many of them have problems managing phone-ins," says Nick Eyre, business development manager for broadcast and media at Logica.

"The key will be in what is being called content aggregation – bringing TV together with facilities such as information services and home shopping, regardless of geographical area," he says.

Digital technology has already revolutionised many areas of the media – from desktop publishing and print processing through to video editing.

Until now, the means of distribution have remained relatively untouched, but Web TV is going to change this.

INNOVATORS IN THE NEWS • By Geoffrey Wheelwright

Fast-track Web company

Rob Glaser of RealNetworks is called 'king of Internet video and audio'

The experience of what he terms "wild weeks" are not uncommon for energetic Rob Glaser and his company, RealNetworks.

Mr Glaser is chief executive and founder of the company that produces the most popular software for "webcasting" live video and audio over the Internet. His company, until recently known as Progressive Networks, has enjoyed skyrocketing success with its RealAudio and RealVideo "streaming" software since it was established in 1995.

Among its customers, RealNetworks also counts a wide range of media companies, including the BBC, the ABC television network, Fox News and US National Public Radio, as well as other software companies, including Microsoft – Mr Glaser's former employer.

By the end of another "wild week", Mr Glaser had planned an initial public offering (IPO), changed the name of the company (from Progressive Networks to RealNetworks), acquired another Internet company (Film.com) and struck deals with two of the world's biggest pop music groups to host their concerts in cyberspace. And that week was not so unusual for one of the world's fastest-track Web companies. In the summer, Mr Glaser announced a deal with Microsoft to have his company's RealAudio and RealVideo software built into Microsoft's new Internet Explorer 4.0 Web and an agreement with MCI to create a high-speed "backbone" for broadcasting Internet video signals.

But in late September, calls from the managements of the Rolling Stones and U2 were on Glaser's mind. The 35-year-old king of Internet video and audio had done deals to broadcast the concerts of both bands – and met Mick Jagger in the process. The Rolling Stones are promoting their North American tour, while U2 was putting plans in place for a concert from Sarajevo, Bosnia.

"It was amazing to see the two biggest touring bands wanting to do the same thing in cyberspace," he says, as his recalls his conversation with Jagger. "I was surprised at how competitive Jagger was. And yes, it was another wild week – but it seems to be our destiny not to have any other kind."

Perhaps it was that destiny which linked Mr Glaser to go-ahead high technology companies back in 1983, when he joined Microsoft as a fresh-faced 21-year old. By the time he left in 1993, he had seen Microsoft grow from a minor participant in a new industry to a global colossus in the software world.

Rob Glaser, founder of RealNetworks: he looked at multimedia technology with a fresh eye – and discovered a winning concept

"But after 10 years, I wanted to get out," he recalls. "It was for personal, 'life-goal' kinds of reasons. I then spent a couple of months travelling to Germany, Greece and Egypt, trying to regain perspective. Microsoft is such a vortex that it was reassuring to do that. Later, on my travels, when I viewed the pyramids, I saw something that had existed for 4,980 years – without Microsoft."

Returning home, Mr Glaser worked with high technology-based non-profit organisations – including the Electronic Frontier Foundation, run by Lotus Development founder Mitch Kapor, who talked to him about the growing importance of the Internet. It was during this time that he first heard about Mosaic, the world's first full-blown Web browser.

Along with others, Mr Glaser was stunned by the immense opportunity of the Web browser – and, more importantly, the potential of the Web itself. And as with many early Internet users, his thoughts about the potential of the Web were very much coloured by his experiences.

Mr Glaser's experience at Microsoft was in pioneering efforts around interactive television, working with

Turn to next page

COMPUTER-BASED TRAINING • By John Kavanagh

Less time in the classroom now

Computer-based training is no panacea, but it complements traditional teaching methods, reducing costs and tutorial time

Information technology has brought new life to do-it-yourself learning, replacing books and letters *with a multimedia experience* and discussions over the Internet.

Yet users are by no means unanimous about the benefits – or even about how computer-based training should be used.

The latest methods are gradually catching on. Research by the UK's Industrial Society shows that almost a quarter of computer and personnel managers now prefer computer-based training, compared with 12 per cent last year. A separate study by Benchmark Research for the training company, Learning Tree International, found just over half those questioned expected it to become "a key training medium".

Researchers differ over precise growth figures but generally adopt bullish views. IDC says computer-based courses will account for 35 per cent of training by 2000. Key Note sees 30-fold growth over the next four years in the UK, from 5.5 per cent of the market by value this year to 28 per cent in 2000 and 43 per cent in 2001.

These predictions have extra hidden significance, in that computer-based courses are cheaper than classroom sessions, and a single CD-Rom product can be used by *many people*. So if this method accounts for a third of the market value by 2000, the number of users will probably be a much higher percentage.

Whatever the growth, it is potentially big enough to have tempted big software companies and consultancies into this business alongside established traditional training companies, which are also moving in to protect their future.

Computer-based training takes two main forms:

☐ Multimedia courses are bought as CD-Roms or downloaded from the supplier's Web site on the Internet or across a company's intranet (an internal private Internet).

A course on a word processing or spreadsheet software package might start at £30 for one user, with discounts for many users cutting the cost dramatically. Such courses typically include periodic tests to check a person's progress; they might also take users to different materials, depending on their knowledge.

Some suppliers also provide software for browsing courses across an intranet, testing knowledge to help people pick the right course, and keeping track of who has done which course, and their test results.

☐ The Internet offers both an electronic version of correspondence courses and a compromise between *self-study and traditional* classroom training. Users can download multimedia self-study materials – or use books or videotapes – and join on-line class discussions, using their PC keyboards, at set times. Written work and exercises can be sent for marking and received back with comments by e-mail.

Costs are again less than for traditional courses: for example, a course on Microsoft's Windows NT software *through the UK's biggest IT* training company, Peritas, including self-study materials, online discussion and e-mail exchanges with the tutor, is 12 per cent of the price of the same course run over 10 days in a classroom – excluding accommodation costs.

Cost is a key benefit – and not only the cost of the course itself.

British Telecom, the UK's main telecommunications operator, is moving increasingly to multimedia training for skills of all types after saving £2.3m on a 600,000 in-house development of sales courses.

Online training manager Dave Podmore says the flexibility means five days' training could typically be done in three.

He adds that the travel and hotel costs of one person on one course cover the cost of a PC soundcard and CD-Rom which can be used again and again.

The facilities management

Frank Kales of IBM: computer-based training complements existing methods

company, Vertex Data Science, also points to flexibility. The company has just signed a 335,000 contract over three years with CBT Systems for 200 courses and software to manage them across Vertex's intranet. The deal works out at around £275 a year for each of the company's 400-plus IT staff.

"In 1995, we found computer-based training was the most cost-effective for reskilling a large number of people quickly, from traditional systems to client/server," says training manager Andy Birbeck.

"The new arrangement gives greater access, across *our intranet from a desktop* PC or a laptop via a modem, to courses whenever and *wherever they're needed*. This allows far more flexibility, which especially suits us, as staff are across a number of our own and customer sites."

Other benefits claimed for computer-based training include reduced business disruption, because staff are not away for days on end, but can study when convenient – including at home if necessary; consistent quality and a consistent message; increases of up to 40 per cent *in retention of information*; reductions in the cost per head with every use; little or no *supervisor or tutor* involvement; and impartial testing, marked automatically.

Even so, computer-based training is by no means a panacea. In the Benchmark Research survey for Learning Tree International, 80 per cent of managers says it complements existing methods, rather than replacing them.

Frank Kales, worldwide general manager for training at IBM, strongly supports this view, which is also endorsed by the Key Note study.

"Computer-based training is great value for generic overviews, but if you're using a system every day, you need proper training to ensure good, practical knowledge," he says.

"*Computer-based training* can significantly cut the time spent in the classroom: *for example, from two or* three weeks to three or four days."

Mr Kales disagrees with the idea of computer-based training being accessed much like a database and used for just-in-time training or even as an on-line manual, referred to only when needed rather than studied from start to finish.

Dave Podmore at British Telecom, *however*, supports this notion and says it is leading to a rethink of *training needs*: "*In IT, for example*, you don't need all the facilities of a package *immediately*. You want 20 minutes' training when you come to use them."

Research has shown that staff typically use no more than 10-20 per cent of the facilities of office software and therefore arguably do not need to study an entire package.

There is also still debate about the whole value and role of computer-based training. Tony Miller, training manager at UK savings company Liverpool Victoria Friendly Society, says it appeals only to a small group – introverts, mainly women aged over 35 – and could actually alienate key staff.

He told this year's Personnel and Training Conference *that his study of the society's* staff "casts doubts on the blind belief that everybody is happy to sit at a PC and work through a package".

Mr Miller said many companies now actively recruited extroverts – and the growing use of CD-Roms could alienate the very people that employers wanted most of all.

This view is rejected as "preposterous" by Paul Henry, European vice-president of *CBT* Systems. "I'm quite an extrovert, but when I sit alone at a PC I tend to be introvert," he says.

Mr Henry adds that computer-*based training* is not necessarily always the best in all cases – for example, for personal communication skills.

Drawbacks which are more widely accepted include the fact that products cannot answer every query, unlike a live tutor; the greater status attached to classroom courses and the risk that CD-Roms will be seen as training 'on the cheap'; the likelihood of interruption if users study at their own office *desks; and*, especially, the problem of motivation and self-discipline.

As Mr Kales at IBM puts it: "A CD-Rom can provide *good graphics* – but the core question is whether you can force yourself to stick at it."

Staff at Vertex Data Science can access IT training from any PC via the company intranet, eliminating the need to travel to a classroom. CBT Systems is providing 200 courses for Vertex

DOCUMENT MANAGEMENT • By Joia Shillingford

The day of the digital enterprise

Within five years, 75 per cent of business information in the developed world will be stored and used electronically

Imagine this: you are in *Hong Kong* and *you need* that report – *now*. Your amendments were supposed to be with the client yesterday. If only the client had e-mailed it – but after three mangled messages, he gave up, saying: "Our systems just aren't compatible."

An everyday story of document mismanagement. But this could about to change, according to industry analysts at the Gartner Group. Senior consultant Charles Abrams who runs the Integrated Document Output Management (Idom) programme believes it won't be long before all sorts of documents are fully integrated.

He says key trends in document management are:

☐ *The rapid digitisation of document-centric information:*

Mr Abrams describes document-centric information as any information stored within an organisation from notes, to a report, to a phone bill. Much of this information is currently on paper. "Within five years, 75 per cent of information in the developed world will be stored and used electronically," he predicts.

☐ *Increasing document lifecycle automation:*

Increasing digitisation – turning a document into bits of data that can be sent over a computer network – will make it possible to automate more of the stages involved in document production. This will bring "enormous benefits," says Abrams. Today, 25-35 per cent of knowledge workers' time is spent integrating and downloading information, trying to find it, then transmit, organise and output it. "When more of this process is automated, productivity will leap," says Mr Abrams.

☐ *The rise of the intelligent document:*

Starting next year, 'intelligent documents' will appear, says Mr Abrams. These documents will be able to tell your computer how they want to be displayed, taking into account your preferences, such as the type size you like to read. "Further on, we'll see the development of the virtual document, which is nothing but a set of instructions until the user needs it."

These documents can be used on intranets (private internets) or the Internet to fetch information and produce reports.

Meanwhile, demand for integrated document management is growing. The number of Idom 'seats' – workstations where you can carry out integrated document management – will increase from 4m today, to 48m by the year 2002, says the Gartner Group.

Applications in financial sector

A typical Idom seat today is in a building society where the whole process of approving a mortgage can be managed electronically, once the paper form is scanned. For example, when a stage of the process has been completed, the document will automatically be sent to the next person in the sequence.

To date, integrated document management is mainly found in structured jobs such as handling an insurance claim, getting a new drug approved or granting a loan. But Mr Abrams believes it will start to be used more widely. "Companies are already trying to create infrastructures that support it, yet no single vendor can meet all their needs."

Key areas for document management, according to an Olsy UK survey of 101 blue chip companies, are client correspondence (mentioned by 69 per cent), financial transaction records (40 per cent), work schedules (29 per cent) and order processing (19 per cent).

Yvette Randriamalaza, marketing manager at Olsy UK, says that technology is helping administrative departments deal with and record client correspondence: communications on paper, by fax, phone or e-mail are digitised, indexed automatically and stored on a computer for immediate retrieval, creating more efficient, responsive organisations.

Document management *technology is also coming* into its own as telesales centres evolve into call and correspondence processing centres. "It is being used to integrate correspondence with customer information received over the phone," says Ms Randriamalaza.

Good document management integrates the following: paper documents, for example, through optical character 'reading' technology; electronic forms; search-engine software; workflow software; integrated document archive and retrieval systems; industry-specific applications; in-house and external publishing; printers, fax machines and photocopiers.

Suppliers are gearing up to provide integrated document management and document-enabled vertical (Diva) applications, says Gartner Group. Obstacles include competing applications programming interfaces (APIs). These are a set of rules for programmers to adhere to when developing software. Without standard APIs, different programs do not work well together.

"Trying to create a set of services for the entire digital document life-cycle is a major challenge for a user," says Mr Abrams.

Changing shape of the market

The *integrated* document management market can be broken down into several *areas. At the top end are* companies such as PCDOCS, Documentum, FileNet and OpenText *with solutions for* document-intensive industries such as pharmaceuticals.

Other companies such as Microsoft, Lotus, Sun, Netscape, IBM, ICL and Novell are also involved in the document management market.

But Roger Whitehead, director of the Office Futures consultancy, believes that a lot of document management is happening by default. "The Internet and intranets have lowered the psychological barriers. Now document management is just included in an intranet as an extra feature. For example, Oracle's InterOffice software costs $55 for a standard electronic mail user; $395, if you want document management and workflow as well. It works as a mediating layer between the user and the Oracle database."

Some office workers are using document management without even realising it, adds Mr Whitehead. "Document management companies such as Open Text are bundling their product with Internet software, such as Netscape Server."

One customer is United Airlines, which will be using OpenText's Livelink WorkSmart to improve its system for managing aircraft information. The software can be used with a standard Internet browser. Oracle's Hat trick – also designed for Internet browsers – is even more compact. It provides editing and other features: all within two megabytes of Java code.

"All the really big sites – such as pharmaceuticals *companies* – have document management software already," says Mr Whitehead. "The market will *only* be there once document management becomes an everyday *tool that* can be used from anywhere."

☐ Charles Abrams is speaking on document management and publishing at the Gartner Group's European Seminar in Cannes this week: see details, page 20.

AUDIO OVER THE INTERNET

Concept birthed in a Eureka moment

From page 13:

large US cable TV concerns, such as TCI, to arrange trials and test technology. As vice-president of multimedia and computer systems, Mr Glaser had become concerned about "how the whole idea could be made real" (at least, as it was constituted in the first generation of TV set-top box-based interactive TV systems).

"*I looked at all of that* with a fresh eye," says Mr Glaser, recalling his first impressions of Mosaic. "I was open as to whether or it would happen, but there was a high ratio of hype to substance and a set of competitive dynamics that did not operate like the computer industry," he says. "All of this convinced me that, in 1993, interactive TV had no bootstrap model, [i.e. no model for getting started].

"I had used the Internet back in college, but Mosaic showed the power of using the network as a bootstrap model. It meant that one application (such as a Web browser) could then be used as a model for the next through the magic of distributed hypermedia. We could build a set of applications *from the bottom up that had* many of the same characteristics as we were talking about [in the interactive TV sector]."

Mr Glaser's "Eureka" experience came as he pondered the technology behind the modems of the day – the fastest of which were then running at 14.4 kbps (kilobits per second). "I wondered whether this was really a medium about static experience and document delivery," he says. "And I remembered that, generally speaking, for an equivalent level of quality, you'd need around 100 times the bandwidth [capacity and speed over the network] for video as audio."

The amount of bandwidth on a 14.4 kbps modem was about 1/100th of what was *needed for video CD-Rom* [an area in which Glaser had been heavily involved at Microsoft] – "*so I started* work on it, based on that idea."

Although Mr Glaser had the vision to build a company to provide "audio over the Internet," he had no idea what kind of business model the new company could use or whether he was even establishing it in the right way. "My bias was that, in 1993, if you wanted to build an interesting company in the horizontal software business, it was a dumb thing to leave Microsoft," he recalls.

"*But the thing that flipped* us from a 'let's look at the technology and see what happens' to actually introducing RealAudio was the belief that the Internet was *different and could be a* 'bootstrap model' that would dramatically change the dynamics. You really *could* do something different."

And the rest, as they say, is Web history. RealAudio was a huge success and was followed over the past year by RealVideo – which have effectively brought the medium of on-demand television and radio to the Internet. While the video part of the business is still in its infancy, it appears to have the potential to grow just as fast as RealAudio in both quality and popularity.

When RealAudio was first offered, it was a bit of a "hit and miss" affair with sketchy "reception" and suffered from "time out", resulting in chunks of sound being lost. But with the use of a good modem, it can be as good as CD-quality with clear, crisp stereo sound broadcast digitally from the Internet. Similar improvements are expected to RealAudio, which already works well on high-speed cable modem or ISDN lines, but is still similar to early RealAudio when used on older, slower modems.

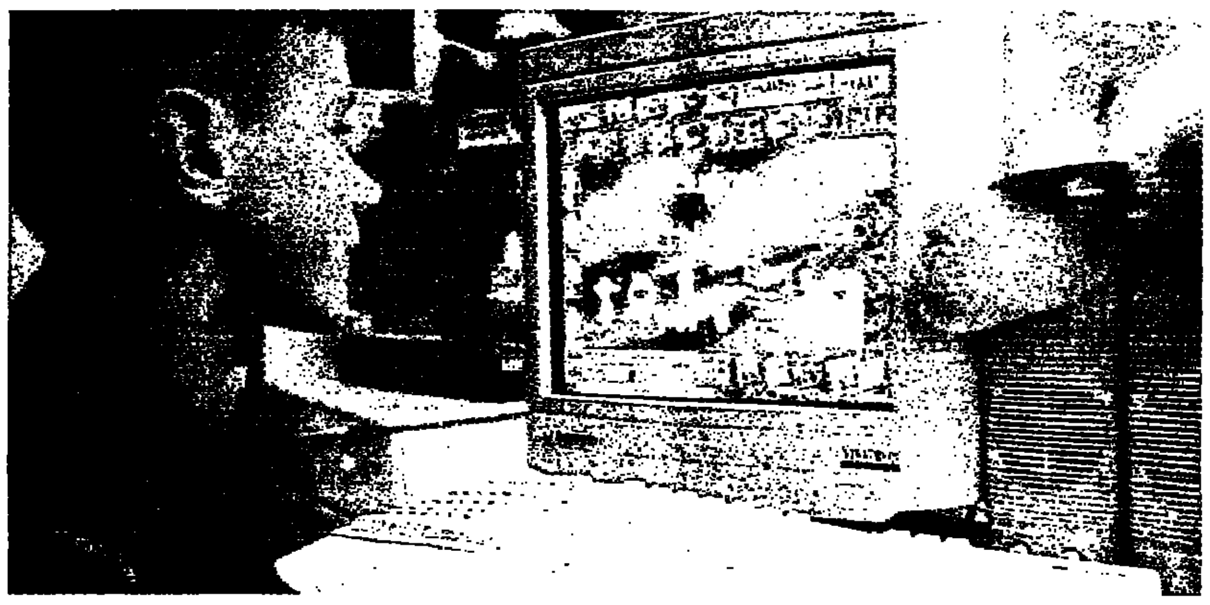
هكذا من الاصل

مكرر من الاصل

REMOVABLE STORAGE • By Geoffrey Nairn

Suppliers leapfrog out of a sleepy backwater

Developers of the digital versatile disk (DVD) hope to avoid a fierce 'format war'



Digital storage technologies are opening new markets in the home entertainment and computer games market

Removable storage, once a sleepy backwater of the IT industry, is going through a period of unprecedented change. Innovative storage formats are fighting to replace the ageing CD-Rom, tape and floppy drives in tomorrow's computers, and the increasing use of digital technology in consumer products creates new markets for storage vendors. Today's hard disks can store gigabytes of data but as fast as the capacities grow, users always seem to need more disk space.

Traditionally, there was no easy way to increase a computer's disk capacity, save installing a bigger disk – a costly and tricky operation. But in 1995, the US company, Iomega, launched the Zip drive, whose simplicity and low price found a ready market with storage-hungry computer users and catapulted Iomega to success.

In the first six months of 1997, Iomega's sales rose 51 per cent to $762m. The Zip drive, which costs £120 and uses removable 100MB magnetic disks, provides a cheap and simple method of increasing a computer's data storage capacity. Each removable disk costs just £10 and can store the equivalent of 70 floppy disks.

Iomega followed the Zip drive with a bigger-capacity, higher-performance version, called the Jaz, capable of storing 1GB. Syquest, the established leader in removable storage, was caught off-guard by Iomega but has fought back by copying Iomega's strategy of rapid innovation, consumer-style marketing and aggressive pricing.

The company's latest removable disk product, the SyJet, offers a huge 1.5GB capacity for just £280 and its performance is close to that of a fixed hard disk.

Magneto-optical (MO) disks offer yet another storage option for users who have outgrown their hard disk. They are highly stable and thus ideal for archiving, though they are slower than magnetic disks and more expensive. The CD-Rom drive is today a standard feature of desktop computers and while traditionally it has been used to play CD-Rom titles or install software, many more applications are possible with the new recordable (CD-R) and rewritable (CD-RW) formats now entering the market.

"Rewritability and recordability are revolutionising the way people use CDs and demand for CD-R and CD-RW media is growing rapidly," says Adrian Lawson, marketing manger for storage products at Hewlett-Packard. CDs can store 650 MB and provide a robust and relatively cheap alternative to removable magnetic storage.

CD-Roms traditionally had to be pressed in a factory and the data they contain could not be altered, but the CD-R and CD-RW formats overcome these drawbacks. The CD-R is a permanent medium and once data is "burnt" on to the disk using a CD-R drive, it cannot be changed. The CD-RW, in contrast, is designed to be used more like a removable magnetic disk and the disk can be re-recorded up to a 1,000 times using a CD-RW drive. The high cost of the drives held back CD-R in the past but prices have dropped dramatically from more than £1,500 in 1996 to less than £300 today.

CD-RW is a much newer format but the first drives and media are already available at prices similar to CD-R. According to researchers at Strategic Marketing Decisions, the worldwide market for CD-R and CD-RW disks is expected to grow from 205m units this year to nearly 350m in 1998.

The 650MB capacity of a CD may seem sufficient for most applications, but the industry is poised to launch a higher capacity optical disk, called the Digital Versatile Disk (DVD), which it hopes will be widely adopted by the consumer electronics and IT industries.

"DVD is going to be the bridge between consumer and computer applications," says Yoshito Tsunoda, a representative for Hitachi in the DVD Forum – a ten-company grouping set up to hopefully avoid the "format wars" that have plagued the storage industry. It has had only limited success as two members, Sony and Philips, recently announced they would develop a rival standard for rewritable DVDs.

DVDs resemble CDs but will only play on a DVD drive which can, however, also play CDs. The basic DVD capacity is 4.7GB – seven times that of a CD – but there are variants up to 17 GB. Like the CD, the DVD comes in several formats. The first to be launched is DVD-Video, which Hollywood hopes will replace the video cassette as the standard for pre-recorded films. The first DVD-Video titles and players are due in US stores before Christmas. DVD-Video will be followed next year by DVD-Rom, DVD-R and DVD-Ram drives, which are aimed at IT applications and correspond functionally to the CD-Rom, CD-R and CD-RW.

"As soon as DVD-Video gets off the ground there will be a serious effort by PC companies to promote DVD drives," says Koji Hase, Toshiba's general manager for DVD products. He predicts 80 per cent of the 100m PCs sold in 2001 will have DVD.

Intel and Microsoft are committed to the new format and Microsoft's forthcoming Windows 98 operating system will be optimised to work with DVD drives.

Last month, three of the forum members held an "interoperability" demonstration to show that DVD media recorded on the drives of one vendor could be played on the drives of another. The aim was to allay fears of a repeat of the incompatibility problems that have plagued CD-R, for example.

However, disk manufacturers admit that DVD media is more difficult to make than CDs and Intel, when it tested 40 DVD-Rom titles on 25 systems, found that two-thirds were incompatible. Analysts have once again had to push back their forecasts because of these problems, but they believe DVD will ultimately be successful – "1998 will be a much quieter year [than predicted], but we are confident that the compatibility problems are well on the way to being resolved," says Julie Schwerin, chairman and chief executive officer of market research company, Infotech.

HARD DRIVE TECHNOLOGY • By Tom Foremski

'Bloatware' drives demand for storage

The fast-growing worldwide market for hard drives will exceed $75bn in the year 2000, compared to $34bn this year

Over the last ten years, hard drive technology has been showing tremendous increases in performance and in storage capacity, but it receives a fraction of the limelight that advances in microprocessors receive. Yet hard drive technology has been improving faster than the celebrated Moore's law – coined by Intel's chairman emeritus, Gordon Moore – which states that microprocessor performance doubles every 18 to 24 months.

"Hard drive capacity has been growing by more than 60 per cent per year and will continue that way at least for several more years," says David Walling, strategic business manager for IBM's disk drive business.

"If everything goes according to plan and companies unveil the products we think they will, hard drive capacities could increase by as much as 90 per cent this year alone," says hard drive industry analyst Robert Katzive, vice president of US market research company, Disk/Trend.

IBM invented the disk drive in 1954 – it was able to store an impressive 5 Mbytes on a disk 26 inches in diameter, a dinosaur compared with today's 3.5 inch drives that store as much as 5 gigabytes.

The invention of disk drives was important, since it provided a relatively cheap storage medium with the benefits of random access, unlike magnetic tape storage systems that provide only serial data access. With random access data storage, computer systems could be built with higher performance, something which is still true today.

The market for hard drives will exceed $75bn worldwide in the year 2000 compared with about $34bn this year, as the hard drive market continues to grow rapidly, according to analysts at Disk/Trend.

The high demand for disk drives is coming from all sectors of the computer industry: from notebook computers to desktop PCs, servers and mainframes. Unit shipments are forecast to reach 126m in 1997, compared with 105m in 1996, and will reach 201m in 2000.

Software applications are also getting much larger, driving demand for more data storage. "They don't call applications 'bloatware' for nothing," points out Mr Katzive. And with the expanding use of the Internet and intranets, plus developments such as digital TV and digital video on demand, there is an ever-growing need for "bit-buckets" – huge banks of disk drives able to store large amounts of video and other data. As unit shipments increase, the data storage capacity of hard drives is also increasing. In 1996, the market was dominated by 1 to 2 gigabyte hard drives and by 2000, Disk/Trend forecasts that 10 and 20 gigabytes drives will dominate shipments.

"The rigid drive industry is growing at spectacular rates and it will maintain a growth rate that many other industries would love to have," says James Porter, president of Disk/Trend.

IBM has managed to keep its lead in hard drive technologies because of its focus on increasing 'areal' density – the number of bits that can be stored in a square inch of hard disk. "We are shipping hard drives with an areal density of 2.64 gigabytes per square inch and we have also demonstrated 5 gigabytes per square inch in the lab," says IBM's Mr Walling.

IBM recently announced a Thinkpad portable computer with an 8 gigabyte capacity hard drive, the largest available on a note book computer, demonstrating how its hard drive technology helps it keep a competitive edge in portable and desktop computer markets.

IBM's progress on increasing areal density still has more than ten years to go before it starts to hit some physical limits. "As you make a data bit smaller and smaller, it begins to be affected by very minor temperature fluctuations at room temperature, so we have to find a way around that or move to new types of storage technologies," says Mr Walling. These could include holographic systems and nanotechnology, but these are still highly experimental technologies.

So far, magnetic data storage technologies such as those used in computer hard drives, have offered the best combination of data storage capacity and performance. Optical data storage has held a promise of high storage capacity at a very low price.

Turn to page 17

How IT helps to maximize sales

In the telephony area, many more companies are now making use of call centres to handle direct sales and customer responses, says Rod Newing

Information technology is playing a crucial role in finding – and keeping – customers. It is becoming more important in the three traditional sales channels of direct mail, telephone and face-to-face sales, whilst adding electronic communication via the Internet as a fourth channel.

Traditionally, direct mail has a reputation for being wasteful in terms of both high costs and low response rates. Now, however, many large businesses involved in this area are setting up data warehouses to gain a detailed view of individual customers. This information is often combined with bought-in external demographic or lifestyle data.

Thus, data mining tools allow marketing departments to segment groups of customers and develop highly targetted mail campaigns. This is reducing the size of mailings while boosting the response rate.

In the telephony area, the use of call centres is likely to increase by 95 per cent in the UK in the coming year, according to a new Softworld survey. These systems handle both outgoing direct selling activities and customers' responses to direct mail, *(see also case study, below, right)*. Again, these call centres are driven in their direct selling by the data warehouse and the results of data mining.

Even face-to-face communication is being made easier through the use of video-conferencing. Whilst the technology and infrastructure is still relatively crude, most sales people rightly shun using it with people they have never met. However, once the necessary relationships have been established through face-to-face meetings, video-conferencing can be very effective in saving the sales executive's travelling time.

Electronic communication across the Internet is providing a fourth channel of communication through e-mail and publishing data on Web sites. Even more importantly, organisations are creating extended enterprises by giving their best customers direct access across the Internet to their internal corporate intranet and into their main business systems. This allows customers to check availability and delivery times and enter orders directly, eliminating the cost of order-takers.

Integrated sales and marketing software is also being used to support the sales and marketing department, helping to manage campaigns, provide contact details, track and record customer interactions, track prospect status, manage the pipeline and generally help the sales executives to manage their time and co-ordinate their actions more effectively. Corporate intranets are now being extended to allow field sales executives to access all their support systems across the Internet. This may be for the cost of a local telephone call, wherever they are in the world.

One of the challenges of having four channels of communication with the customer is that it raises the need to synchronise data between the four channels, ensuring that the same products, specifications and prices are consistent across the channels. This should not be a problem if they are all driven from the same central database.

There is also a big management challenge to be faced with an additional channel, because customers will judge their suppliers by the quality of their weakest channel. Although the Internet offers enormous opportunity, it is still immature and if not handled correctly could damage brand loyalty which has been carefully built up through high quality use of the other channels.

"We are seeing a move away from first generation direct mailing software, because organisations want to efficiently integrate their mailing with their other mail, telephone and e-mail systems," observes Gareth Hershel, research analyst for technology enabled relationship management at the *Gartner Group.*

"The data warehouse provides the focal point. And as it is constantly updated, it can cope with the shorter cycle times involved in electronic trading."

A new report *(see facing page)* indicates that in the UK, at least, data warehousing is still "hopelessly misunderstood" by many marketing teams. However, among those companies that *do* grasp the significance of the technology, much of the focus of system vendors' marketing is upon the use of data mining software to discover hidden patterns and relationships in the data.

Savacentre, the UK hypermarket chain, built a data warehouse in response to a specific request from the business for better information about customers and products and to help the marketing department understand information derived from its customer loyalty scheme.

"We are very much into data mining, as it provides more information about customers," says Bob Jones, Savacentre's systems development manager. "Shopping baskets give clearer facts than market research, which may provide impressions that shoppers want you to hear. Data mining allows us to focus our services more in line with customer's requirements and actual shopping habits."

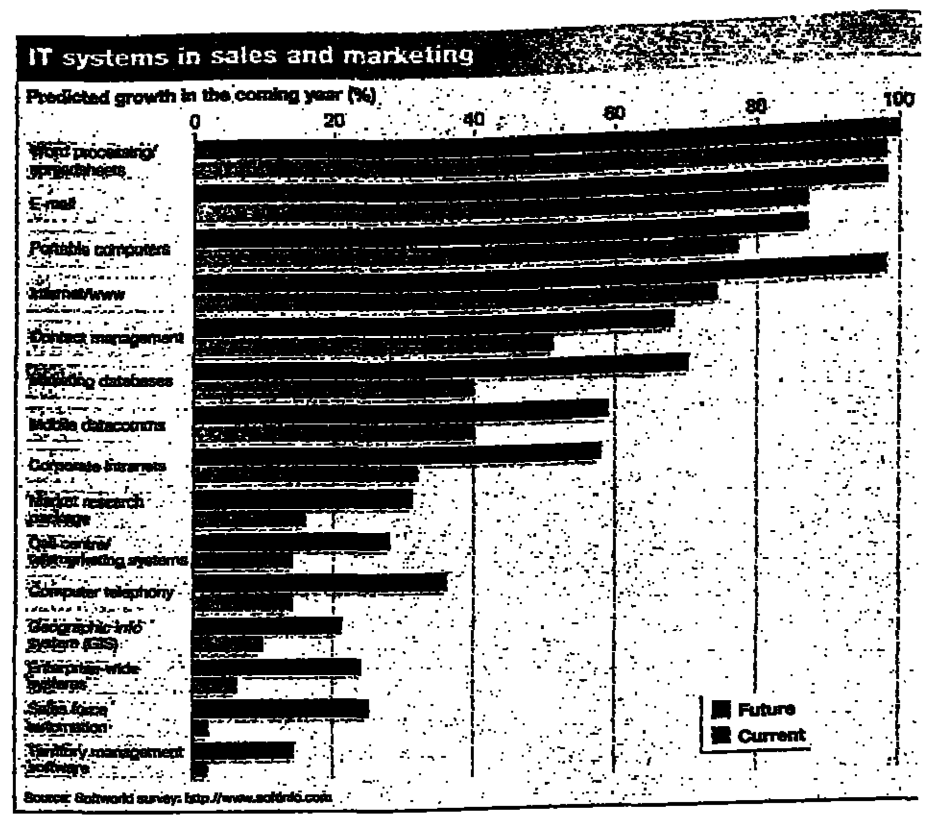
Customers are fickle, but datamining helps to ensure that the company meets shoppers' expectations. "The slightest thing can cause them to move to a competitor," says Mr Jones. "Data mining doesn't replace the need for a good check-out service, but it does help us to focus on keeping regular customers, which is cheaper than gaining new customers."

Clive Burrows, author of an Ovum research report on sales force automation, has been tracking the packaged software market for many years. "There is a strong trend for merging between call centre, sales force automation and help-desk software," he says. "Most packages claim integration, but only the larger vendors have true integration with a common database."

Sales prospect details are transferred from the database and allocated to the relevant sales territory. The salesman is then able to refer to previous interactions with the call centre of technical problems dealt with by the help desk.

Sales and marketing software is an area that has been neglected by the enterprise resource planning (ERP) vendors. The market started with small geographical and vertical market vendors providing a 'best-of-breed' solution, says Jeff Golterman at the Gartner Group.

"Only recently have global vendors emerged, such as Siebel, Vantive, Aurum and Scopus – although Baan, a vendor of ERP systems, has purchased Aurum, and SAP and Oracle are strengthening their own modules, the suppliers will survive because they are offering richer functionality, a stronger architecture and support for the mobile user."




Customers are increasingly fickle, but data mining helps to ensure that companies meet shoppers' expectations

FT IT

Sales and marketing systems

Here and on the facing page, FT writers examine the impact of IT in the marketplace

□ *Online Information 97: conference and exhibition: London, December 9-11: see details, page 21.*
□ *Dialing for Dollars: The Yankee Group's pan-European call centre conference, November 24-26, Amsterdam. Tel. +44 1923 246 511. fax +44 1923 247 566.*
□ *Data Warehousing 97, European conference and exhibition, Olympia, London November 18-19: details available from Business Intelligence on telephone +44 (0) 181 879 3355.*

CALL CENTRES • IT industry case study by George Black

Now Compaq targets smaller users

A longtime PC supplier to big corporations, Compaq launches a new service for small to medium-sized companies

Compaq, the world's largest personal computer manufacturer, plans to increase its sales among smaller firms by adopting the most advanced call centre software.

In Scotland, at the company's new centre in Glasgow – which opened in July – it uses a *database marketing* system from the US software developer, Siebel.

Compaq's chief executive Eckhard Pfeiffer has set a goal of pushing his company up from fifth to third place in the league of the largest information technology suppliers by the year 2000.

To do this it will have to outpace others in the fast-growing PC sector and increase its market share among small and medium-sized enterprises (SMEs), which it defines as those with fewer than 500 employees.

Compaq has long been a favourite supplier of the large corporations, with a market share of more than 20 per cent in some countries, but among smaller users it is less strong, with a share typically of only around 10 per cent or less.

In particular, the company needs to match and – if possible – overtake the impressive growth rate of direct-selling PC manufacturers, such as Dell.

Its ambitious growth target made many people in the industry think it was about to abandon its long-established policy of selling only through *indirect channels* and move into direct selling to the SMEs.

But up to now it has only launched a pilot project to sell a very limited range of products into the home office sector. For the rest, it has set itself to work more closely with its resellers.

It wants to use those resellers, of whom there are 2,500 in the UK, to win over more users in the SME sector, for example by persuading them to look less at the relatively high purchase price of its PCs and more at the long-term cost of ownership, where it believes it has a clear advantage.

Complex messages of this kind cannot easily be put across in advertisements and require it to create much closer relationships with SMEs. Compaq realised it had to get to know these firms much better and not meet them for the first time at the bidding stage, when their minds were often already made up.


COMPAQ
Ekhard Pfeiffer, president of Compaq, the PC maker, which aims to move up from fifth to third place in the world league of top IT suppliers

This strategy led to the establishment of the Glasgow call centre, which is managed by Teledata, Scottish Power's call centre outsourcing firm.

Glasgow was chosen because Compaq wanted to work with Teledata and thought the city would provide it with a pool of suitably skilled graduate labour. There were already a number of call centres for the computer industry in the area.

The new centre at present *houses only 120 agents and* support staff but it looks likely to expand into one of the largest in the industry in the UK.

Britain is the first country in which Compaq has set up such a centre and if successful it could become the pattern for the way the company does business in other countries.

Compaq believes the support of the centre will enable its resellers to do a better job for it and to persuade them to give a higher priority to its PCs when selling to SMEs.

To build closer relationships with SMEs, Compaq decided it was essential to instal a highly flexible and scaleable database marketing system, capable of tracking every contact with a customer or prospect and of providing a response fitted to each individual customer.

"In the past our culture has been that only the big ones really mattered," says Adam Denton, Compaq's marketing manager. "Now we have changed – and we are treating *everyone* who calls as important."

After a survey of the software products available, the *company decided on the Siebel* system, which had mainly been used for account management and had to be tailored to the requirements of a call centre. Compaq is among the first to apply Siebel software in this way.

Requirements

New user interfaces were developed to meet the different requirements of the inbound and out-bound teams, to make it as easy as possible for all of the staff to use the system.

Compaq decided to set up the centre in March and was able to tailor the software and put its new recruits through a month's training in time to open for business in July.

It believes the centre should help to boost sales because trials showed that people were five times more likely to respond to an advertisement if it carried a Compaq number to call than if it had a reseller's number. Advertisements are therefore being re-designed to encourage people to call the centre.

It also houses a channel *support team, whose job it is* to put callers in contact with local distributors, accredited resellers and dealers and to follow up and check that the caller has received the service required.

"In this way we can find out much more about what our customers want and if they do not buy from us, why not," says Mr Denton.

It is hoped that through the use of the Siebel system resellers will get more and better qualified leads referred to them and a higher proportion of these will be turned into new business.

It is still too early to make a judgement on the effectiveness of the operation, but Denton says it is beginning to make a contribution and the possibilities look extremely promising. "It is already proving to have been a good decision," he says.

IMPACT OF ELECTRONIC COMMERCE • By Rod Newing

Prospect of fewer feet on the street

Electronic trading threatens to remove the role of the sales force as an 'interface' between a company and its customers

The Internet is starting to have what will soon be a huge impact on trade. It is estimated to grow from \$8bn this year in the US alone to \$327bn by 2002, according to independent analysts Forrester Research, *(http://www.forrester.com).*

Forrester believes that the Internet has the benefit of offering information exchange on demand at any time. It also provides rich dynamic content at lower cost and customised information and services tailored to individual corporate buyers. This all serves to make electronic trade more efficient and cheaper.

This is likely to have a dramatic impact on the traditional role of the sales force. But at the relatively lower end of the scale, where the sale is not highly priced and the sales person is essentially an order-taker, they are likely to be replaced by call centres and electronic commerce. "Such people add no value, so they will die out," predicts Mr Chris Mathias, chairman of relationship marketing consultants Conduit Communications, *(http://www.conduit.co.uk* or *http://www.conduit-usa.com).*

At the opposite end of the spectrum, high value purchases have traditionally involved sales executives in many of the stages of the buying process, including stimulation, needs recognition, information provision, negotiation, decision-making, fulfilment and repeat business.

Data warehouses with Web-enabled front ends offer the opportunity to take away much of the routine stimulation and needs recognition from the sales force. Electronic mail messages can stimulate and identify the need while the Web site can take the burden of information provision from sales executives.

Power transfer

The drawback to all this is that the sales force may be denied their own information-gathering exercise, carried out in early meetings, which may move some of the power of the sales force to the buyer.

"Buyers will self-serve with information because it is so easy to do," says Mr Mathias "They won't let the sales people in until the shortlist stage, as it wastes too much of their time. The sales force will lose its role in stimulus and need recognition."

Richard Griffiths, principal consultant at the management consultancy Winchester White, sees the sales force under pressure from their own organisation, as well. "Around 57 per cent of their time is spent finding prospects and only 13 per cent in a contact leading to a sale. Businesses won't be able to afford these costs and will use electronic means to reduce the expense."

One advantage of this process is that buyers will pre-qualify themselves. By the time the vendor is on the short list, the prospect already has a relationship through the Web site and call centre and is "serious about buying," says Mr Gareth Hershel, research analyst for technology enabled relationship management at Gartner Group, the independent analysts.

"The pre-qualification is done and the salesman will have details of previous interactions with the Web site database, if it collects registration information, and with the call centre."

With the Internet dealing with the detail, sales executives can concentrate on using their skills to add value, which will primarily be in negotiation, once they have been put on to the short list. The sales force for this will be much smaller, but much more skilled at negotiation and closing. They will be relieved of their information distribution and groundwork burden. However, technology will help them to deal with more customers by using diary and scheduling software. Initial face-to-face meetings may even be replaced later in the negotiation with video conference calls.

Clearly, there is still a role for people in the information gathering stage through links to call centres from web pages. "Purchasers will be able to talk to people through the web site, using a microphone on their PC," predicts Martin Shields, senior vice president for global marketing at Sitel Corporation *(http://www.sitel.com),* which claims to be the world's largest call centre provider.

"People say the Web site is king, which is nonsense – and you won't do away with people altogether," he says.

Need for dialogue

Mr Shields points out that if purchasers come to a Web site with pre-programmed questions, they only receive answers to those questions. "They don't ask any other because there is no facility, so you definitely need to maintain a dialogue with your customers. It is a blend of technology and people and the purchaser will continue to want to have access to both, although the ratios may change."

One problem with excluding the sales force from the early information gathering stage is allowing customers to see price too early in the cycle, before their needs have been assessed and the benefits of the solution established by the sales executive. There is a danger that customers could short-list the cheapest solution, rather than the most cost-effective or one which has the most potential for competitive advantage.

"It depends on the nature of the purchase," suggests Mr Hershel. "If you just want a commodity PC, you can go to Dell's Web site and get the price and place an order. If you want a high level of support, you can go to IBM's Web site where they won't quote you prices."

This, of course, brings in the whole debate about the role of brand positioning on the Internet, which has yet to be put to the test.

Clearly, electronic trading threatens to remove the role of the sales force as an interface between customer by putting organisations in direct contact with their customers. The sales force of the future will be smaller, because the routine field and administrative work will be handled electronically.

"The impact of electronic trading will be brutal in low value sales, but intense in high value sales," concludes Mr Mathias. "In the meantime, the sales force automation software vendors are automating a process that will disappear!"

صكنا من الاهل

CONTACT MANAGEMENT

Keeping track of customers

While sales force automation software has long been popular, there is also a growing trend toward the use of handheld computers by salespeople

It has been called by a variety of terms: contact management, relationship marketing software and sales force automation. Whatever the name, software designed to help salespeople more effectively keep track of their contact with customers is gaining in popularity as its potential to ease the relationship between the customer and the salesperson is realised.

Contact management software can keep a record of when a salesperson last made contact with a client, when (or if) they agreed to speak again, what the content of the conversation was, which products (if any) were sold, how much was spent and, perhaps, why the products were purchased.

This information is in addition to the basic details of address, phone number, fax number and other essentials that any simple address book/database will handle for the user.

While sales of contact management software have soared in recent years – with titles such as ACT!, GoldMine, and Maximizer making an impact in North America and Europe – several trends have started to change the nature of contact management applications.

The first of these is the move toward the use of handheld computers by salespeople.

The release of Windows CE 2.0, the "next generation" handheld computer operating system produced by Microsoft last month, is encouraging many of the leading lights in the contact management software arena to create Windows CE 2.0 versions of their products.

This is not only because it bears the name Windows (an operating system on which most contact management applications already run) but also because Windows CE 2.0 provides a number of features that are particularly attractive to mobile sales forces.

These include a 'pocket' version of the popular PowerPoint presentation graphics application, the ability to use a colour display and the integration of electronic mail functions.

All these functions make it much more likely that salespeople will use a handheld computer in the first place – thereby strengthening the argument for contact management software developers to create versions for Windows CE-based handheld computers.

Evidence that providers are finding the case compelling comes in the form of Canadian contact management developer Pivotal Software, which recently decided to create a version of its Relationship Web Client software for use with Windows CE 2.0-based handheld PCs.

The software is aimed at providing users with Internet and intranet (internal company network) access to the company's client/server contact management application through a standard web browser.

And, when used on a Windows CE 2.0-based handheld computer, the software allows remote sales people, field marketing and support representatives to access and update customer and prospect information, as well as run queries and reports, using a handheld PC, via the Internet.

Secure and easy to use

The idea is that corporate customers can use this software on a Windows CE-based handheld computer, combined with Internet access, to provide a secure, low cost, easy-to-use and easy-to-administer virtual wide area network.

Pivotal Software says that the development will mean that changes made to the enterprise database using its software – such as orders or contact reports filed by salespeople – are instantly available to local area network-based users and automatically sent to mobile users through a "data synchronisation" utility included in the Web browser-based software/

The aim is to provide what Pivotal Software calls a "virtual customer knowledge base" that everyone in the company can use to obtain up-to-the-minute information on product sales and client relationships.

The interest by corporations in using handheld computers in this way was highlighted, once again in Canada, a few weeks ago when Compaq Canada announced that it had sold 30 Compaq PC Companion handheld computers to the Canadian retail product merchandising organisation, Sales and Merchandising Group, for use as sales force automation tools.

These Compaq systems are replacing the heavier notebook PCs used by the S & MG sales force for individual customer retail outlet inventory management, Internet communications, customer contact list development, appointment scheduling and to-do list creation.

"While notebook PCs have proven to be excellent mobile communications tools, our sales force was finding them too heavy to carry around for what they wanted to do," explains Gerry Henstra, director of Information Resources at Sales and Merchandising.

"Now they can perform the same tasks on a handheld computer weighing less than a pound that can be slipped into a jacket pocket."

The other big issue facing contact management software developers is how to best make use of the Internet, e-mail and desktop applications that have become popular, such as browsers and e-mail software. It was these trends, for example, that prompted Vancouver-based Maximizer Technologies to launch its 'Maximizer 97is' for Windows 95, (the 'is' stands for Internet Savvy), earlier this year.

This product added electronic mail capabilities and Internet integration to the company's existing Maximizer contact management software and also provided integration with the popular Microsoft Outlook 97 e-mail/scheduling/address book package that comes bundled with Microsoft Office 97.

This meant that users did not have to give up information that had already been keyed into Outlook to benefit from using Maximizer 97.

Contact management applications are likely to continue evolving as customers become increasingly demanding - looking for some form of Internet connectivity, tight integration with e-mail and a measure of presentation graphics function as well as firm coupling with the contact management functions of handheld computers.

Exploring the world of books via Waterstone's kiosks at the new Glasgow superstore

RETAIL INTRANET • Case study by Michael Wiltshire

Pioneering system to assist book buyers

Bookstore chain launches an in-store intranet with details of more than a million titles

Waterstone's, the upmarket bookstore chain, has launched a retail intranet at its new Glasgow superstore, in what is claimed to be a pioneering IT project in the UK retail sector.

The intranet – a private network, based on Internet technology – provides live book-stock information to customers. In-store shoppers use kiosks, pictured above, to interact with Waterstone's database, which includes a million book and CD-Rom titles.

The aims of the project, which is already proving popular with customers, are to enhance the average book buyer's shopping experience and enhance Waterstone's reputation as an innovative retailer. "We will be closely monitoring customer-response to see how the project can be developed," says Waterstone's spokesman, Stuart Lawson.

Staff know the intranet as 'Ossian', a name deeply rooted in ancient Scottish literature. To attract customers, Ossian uses a sequence of 'pages' on terminal screens, asking:'Haven't you got anything better to read than this?' and answering on the next screen with: 'We have. Try our book search to find the book you want – and where it is.'

A search through the database quickly produces lists of relevant information, including whether or not the book is in stock plus directions to its exact location in the five-storey store.

Ossian also allows users to review Waterstone's best-sellers, check-out special events within the superstore, browse through a selection of titles that the booksellers have selected for a price promotion, read a history of the building – or simply find out more about Ossianic verse.

The Ossian kiosk system has been developed by Hyperlink and includes Microsoft's Web technology. Hyperlink specialises in Web page design and systems integration. The IT company is also responsible for Waterstone's Internet Bookshop (http://www.waterstones.co.uk/), and Waterstone's Virgil book database.

Among Hyperlink's other web sites clients are Somerfield Stores and the Corporation of London. Commenting on the Waterstone project, John Lambert, Hyperlink's technical director, says: "The modular, distributed approach used in Virgil, allowed the development of Ossian in around six weeks – an incredibly short period for a major software project. It was completed on time and on budget."

There is also the opportunity to use Hyperlink's sound production facilities to add multimedia features to Ossian.

In-store video is also being considered – Ossian's design allows these features to be added without making software changes.

DATA WAREHOUSING

Technology still 'widely misunderstood'

Companies' marketing efforts hampered by ineffective IT systems

Data warehousing remains widely misunderstood by non IT-professionals, according to new research which also shows that marketing teams prefer to tackle customer information problems through market research, rather than improving IT systems.

The report, by KPMG Management Consulting, questioned sales, marketing and business development directors in more than 200 UK companies, with turnovers of between £1.9m to £4bn, about their ability to utilise information within their companies, the effectiveness of the their IT systems and their perceptions and usage of data warehousing.

The survey found high levels of dissatisfaction with existing IT systems in serving marketing needs, but low levels of awareness about the role of data warehousing in supporting of marketing. Key findings include:

- Almost one-in-three respondents were totally unaware of the term 'date warehousing'. Only two-in-five respondents were able to define the term correctly.
- Only 16 per cent of respondents with a data warehouse had measured its return on investment.
- Fewer than one-in-ten respondents rated IT as "extremely effective" in creating or improving customer information systems.
- Eleven per cent of respondents blamed the ineffectiveness of their IT systems on a "lack of information", while 5 per cent found it too difficult to match individual needs.
- In all, 46 per cent of respondents did not consider their information systems to be effective in generating information for marketing activities.

David Stone, principal consultant with KPMG, says it is surprising that marketing professionals have a low awareness of data warehousing. It is still widely misunderstood, but it is the only available technology that gives decision-makers access to all relevant information and also enables them to interrogate and use that information creatively, rather than just viewing static data, he says

One reason for the lack of understanding is the attitude of business towards technology. Paul Baker, a partner with KPMG, comments: "Business professionals without an IT background are often discouraged by references to IT. But in this information age, competitive advantage is increasingly dependent on well thought-out and implemented technologies."

For a copy of the research report, call Georgina Shipsey at KPMG on 44 (0) 171 311 8865.

- Michael Wiltshire

Vantive system boosts Network General

Field sales staff and the telesales team work well together, without complications

Network General, a US software company, says it has boosted the productivity of its telesales operation dramatically by installing a new system from Vantive.

The company, which had sales of $250m last year, is best known for its Sniffer network traffic monitoring system. Sniffer has achieved a market share of around 60 per cent mainly because it helps network managers to control and optimize the performance of their networks.

Based in Menlo Park, California, Network General has expanded its range to cover all aspects of fault detection and performance monitoring. It has grown at 30 per cent a year for the past seven years, which has created some big challenges for its management.

One of the main problems has been how to sustain such a growth rate without an equal increase in the number of staff, particularly to support sales and marketing.

Its response to this situation was to set up a telesales department, in order to gain a crucial advantage over competitors who did not have such an arm to their business. The aim was to reduce the average cost of sale and at the same time provide better service to customers.

It was essential to make the best possible use of this new group of 40 people, by integrating their work with that of the customer support and technical support operations. Integration was seen as the key to spotting sales opportunities and ensuring that they were turned into new business.

Last year the company decided to invest in a new software system because it had outgrown the capabilities of the system then in use. It could not make sales forecasts, nor could it track the progress of leads from its marketing efforts.

Questions

The management had no idea what proportion of leads turned into business, so it could not properly assess the effectiveness of its marketing programmes.

Chief information officer Jim Whittaker began to study the field for sales and marketing software. "We wanted something that worked out of the box – and for a lot of products the marketing is way ahead of the performance – and also something which was scalable and could keep up with our growing number of users."

In the research Vantive's name kept coming up as the best product, says Mr Whittaker. "Time was of the essence for us, I did not want a prolonged assessment cycle, so I put on a demonstration for our users and they were quickly convinced.

"Vantive was a well integrated suite of applications so that we would not have to learn about a lot of different products and then have to integrate them ourselves.

"All our applications now use a single, accurate database which means that whoever is dealing with the customer is able to provide a good service based on all the information about that customer. If a problem is reported, we can tell at once if anyone else has reported the same problem."

It took 80 days to get the telesales operation up and running and 90 days to instal the system for the technical support staff. The system serves over 200 users in California, Oregon and London. Telesales staff are able to handle many more calls in a day, so their contribition to company revenue has soared, says Mr Whittaker. Knowing what software customers have enables staff to propose additions and upgrades.

The system has improved efficiency by eliminating a number of manual processes such as sending out letters to customers when their contracts are due for renewal. This had been done manually just because the standard letter did not incorporate prices.

Sometimes renewal letters were overlooked and customers were lost unnecessarily. The new system is trusted to send all renewal letters when necessary and is able to add prices automatically and make them specific to the customer.

Another redundant manual process was sending faxes to people who called for a quotation. The Vantive system is able to respond to such inquiries automatically.

Now customers, impressed by the letters they receive, renew their support contracts more readily, often even without a call from the sales representative, says Mr Whittaker.

Easy renewals

Since the systems for the telesales and support groups have been integrated, a support representative can see during a conversation with a caller that a contract is coming up for renewal and can deal with it himself then and there, to avoid the chance of it lapsing.

When the telesales operation was first set up the field sales team was very protective of its customers and did not want anyone from telesales to talk to them. But because telesales people have become more knowledgeable and efficient using the new system, the field sales team now regards them as a resource rather than a rival.

Telesales and field sales people are now able to work closely together. The field sales people make use of telesales to call customers and give them quotations and upgrades to their products.

Telesales has taken on many of the smaller tasks, leaving field sales people free to spend more time with customers and prospects. The two teams communicate information about customers easily via email.

For technical support staff, the system has also been a great benefit. Formerly, they used to receive complaints if they did not know exactly what products the customer had purchased – now that information is more readily available, the number of complaints about support has fallen sharply.

Quest for storage solutions

From page 15:

such as the 4.7 gigabyte disk capacity of DVD drives, but for read-and-write, applications known as DVD Ram, optical disk technology is far behind in terms of performance.

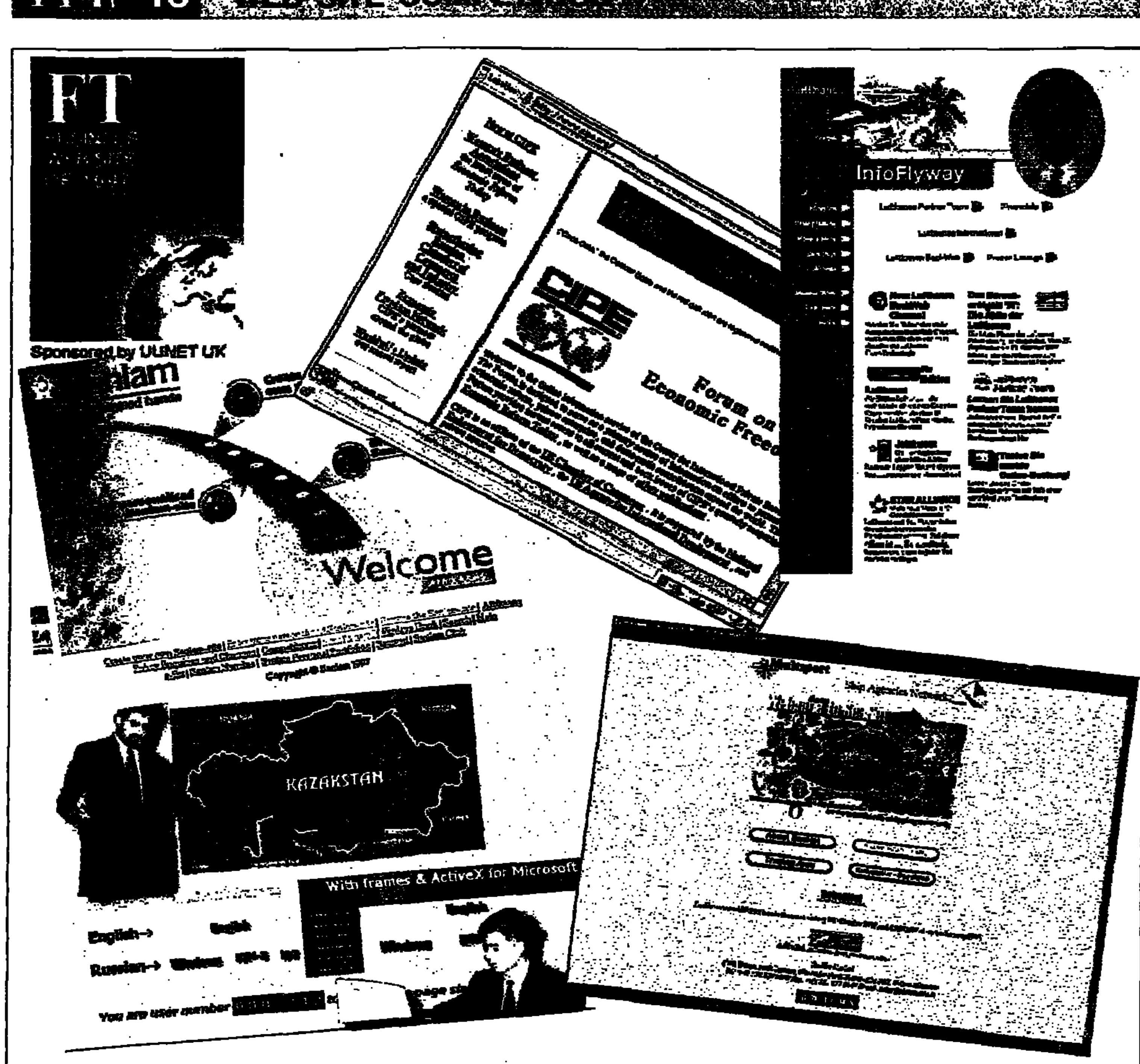
"I don't think optical data storage will ever be able to compete with hard drive technology. There are some serious obstacles regarding the speed and the mechanics of optical drives," says Mary Bourdon, senior analyst at the market research firm, Dataquest.

Some companies have taken a different approach to try and raise hard drive capacities. US companies Terastor and Quinta, which was acquired by Seagate Technology recently, have developed a hybrid magneto-optical technology that combines optical and magnetic data storage techniques to boost disk capacity by as much as ten times of current hard drive capacity.

"It's not yet clear if technologies such as those that Terastor has, will be able to match the speed of hard drives. They might work well in a niche that is faster than tape drive storage but is cheaper than hard drives," said Mr Katzive at Disk/Trend.

Terastor does not plan to produce any hard drives itself, instead, it is licensing the technology to other hard drive companies. They will incorporate it into their production lines and the first Terastor-based hard drives should be ready by the middle of 1998.

To increase hard drive capacities further, the disk drive industry is increasingly adopting magneto-resistive (MR) head technology, originally developed by IBM, to be able to write and read data at increased disk densities. And IBM, Seagate and other companies are working on Giant-MR heads, which can double areal densities and lead to new products. Since applications continue to be developed that require large hard disk capacities, and as increases in hard drive capacity in turn make new types of applications possible, companies such as IBM will continue to drive the technology forward.



The competition attracted a diverse range of high quality web sites from organisations large and small. Peter Martin, international editions editor of the Financial Times, and Paul Maidment, FT web site editor – and one of the panel of judges – praised the high standard of entries at an FT awards ceremony on Monday evening. The award is sponsored by UUNET UK, Europe's largest Internet service provider, in association with the FT. More details are available on: http://www.uunet.pipex.com/events/ft/

FT BUSINESS WEBSITES OF 1997

Winning websites

From a high quality of entries, the category winners of the competition to find the FT Business Web Site of the Year are announced today

The FT has been looking for organisations which use their web site to achieve commercial advantage in their particular market and can display evidence of business transformation, innovation and measurable financial benefits.

The competition is sponsored by UUNET UK, Europe's largest Internet service provider, in association with the FT. Winners and finalists in five categories – large organisations, excluding those in the financial sector; financial services; small and medium-sized organisations, employing fewer than 250 employees; the public sector; and not-for-profit organisations – are as follows:

Jeremy Paxman: guest presenter at this week's FT awards ceremony in London

Large corporates

Winner - Lufthansa German Airlines:
Entered by Robert Rethfield, (robert.rethfield@dlh); http://www.lufthansa.com

The rationale behind the Lufthansa site was *fairly traditional: to establish an airline* technology leadership; establish a channel to sell directly to consumers; reduce distribution costs; and explore new marketing opportunities through the World Wide Web.

The Lufthansa site is currently unique in its field using push technology and Java to offer live ticket auctions with no minimum fare. It has a "fare bargain finder" which also impressed the judges!

Its achievements include changing the direct sales and marketing strategy, gaining full executive board backing and delivering its Internet address on most 'classical' advertising campaigns.

The global reservation and ticketing facility means that travellers may book their flights in India via the Internet and pick up tickets at Delhi airport. The BackWeb 'push' informs customers about prices and new products. Lufthansa is the only airline to have reached an agreement with travel agents to sell directly via the Internet. Further benefits from the web site include: sales via the web site include the boost to sales. In 1997, this rise may total more than $1m (£600,000).

Growth rates are increasing by 30 per cent to 40 per cent a month – there are around 6m 'hits' a month.

Highly commended: Cisco Systems and BMW.

Financial services

Winner: Sanlam
Entered by Deon Meyer (deon.meyer @ sanlam.co.za); http://www.sanlam.co.za

The Sanlam site demonstrates how the Web can provide a global parallel for the traditional branch office. This supports the team's own objective to be a virtual office for their South African company.

The judges agreed with Deon Meyer's own assessment: "We try to offer a 'warm' web community where clients and prospective clients can get all their information, do on-line investments, take part in discussions, subscribe to newsletters or just leave us a message."

A main benefit has been an increase in client-satisfaction. Speed of response has been a key factor with the aim of responding to all mail within 60 minutes. Another innovation has been the personalisation of the site. Clients can 'program' the buttons they want when they enter the site.

Management at Sanlam took time to realise the potential of the web site, but has *now agreed to develop investment products* specifically for the Web – business benefits directly attributable to the web site probably helped that decision. The site has relieved pressure on Sanlam's freephone number and the company is averaging R40,000 in investment income on a rising curve.

Highly commended: iii interactive investor; ICICI Bank; and Schwab-Now!

Public sector

Winner: Pragma for the Republic of Kazakstan web site.
Entered by: Gabriel Al-Salem; (alsalem @ stockinfo.almaty.kz); project manager, Pragma, http://www.kazecon.kz.

The Republic of Kazakstan site had some challenging objectives: to enhance the perception of the republic 'on the world map' and to win inward investment. In this project, it was not just the innovative use of the Internet which impressed the judges but the practical way the site is being used to stimulate overseas investment in an affordable way.

The site is probably unique because it seeks to develop the business of not one company but an entire country. The main aim has been to contribute to the establishment of a liquid securities market in this young country through creation of an information resource for other interested parties throughout the world.

Web site features supporting this aim include those providing information on the political, legal and business environment, upcoming privatisation sales and former state enterprises.

The web site has changed the mindset of entire constituencies within government, encouraging an open, global approach to business and creating a resource that allows for easy international networking. The site now has more than 100 registered users representing all continents except for South America and Antarctica.

English and Russian versions exist and all databases and news functions are updated on a weekly basis. Extranet technology gives users access to the organisation's intranet (a private network, based on Internet technology).

The web site was designed – and is maintained – by the Kazakstan Mass Privatisation Project (KMPP), a programme of technical assistance funded by both the US government and the European Union.

Highly commended: Irish Tourist Board; the Jubilee Line Extension Project.

Not-for-profit

Winner: *Centre for International* Private Enterprise (CIPE)
Entered by David Jones (djones@cipe.org), assistant editor; http://www.cipe.org

What distinguishes the CIPE site is the way it has transformed a publishing strategy, without recourse to the latest technology, but concentrating instead on speed of delivery to suit its audience.

CIPE established the Forum on Economic Freedom in September 1995 to expand access to its information by policymakers around the world. Fast access was critical. Other features include 'e-mail-on-demand' for users without full web access, discussion groups, and the Economic Freedom Network providing a 'one-stop shop' for policy-makers worldwide.

The Economic Reform Today (ERT) is no longer seen as primarily a hard copy *publication. The Web edition is a* stand-alone service that is more extensive but less expensive – vitally important for target groups in countries with poor postal systems, such as China and Haiti.

Eventually, the printed edition of ERT will exist only to reach those clients without Web access, freeing resources for improving the quality and quantity of information and print distribution in regions previously cost-prohibitive and without adequate Internet access.

The results have been impressive: 180,000 hits since September 1995, exceeding annual print circulation of 26,000; 478,839 Kbytes of information transferred in two months. CIPE has cut costs, reduced waste and increased efficiency.

Small and medium enterprises

Winner: SeaNet Ltd.
Entered by Philip Baker, (pbaker@metalbulletin.co.uk); http://www.seanet.co.uk.

The idea behind SeaNet was to offer more than a simple publishing model, using the World Wide Web in a truly interactive way. Launched in 1995 it provides a range of more than 30 services for information, communication and transactional work for the global *maritime industry on a* subscriber-only basis ($950 (£572) a year).

Key benefits: SeaNet offers users the chance to replace very expensive conventional technology to enhance both profitability and competitiveness. Subscribers may conduct business 24 hours a *day*; the secure e-mail system provides savings on the traditionally high communications costs in the maritime industry. Services include daily news, real-time trading, market reports, secure e-mail, pricing indices, searchable databases, and shipping finance.

Metal Bulletin, the holding company of SeaNet, has also used Web technology to establish SeaNet as a model to launch similar products in other markets, saving an estimated £600,000 in development costs. SeaNet is now cash-positive with a thriving subscriber-base and subscription renewals running at more than 90 per cent.

Highly commended: JJ Smith; Internet Movie Database; and TrustNet.

Judges' special commendations

General Election 97 web site. Entered by Alan Vanstone, Online Magic Ltd; *http://www.ge97.co.uk*
BP CharterRing Extranet site. Entered by Colin Frost, BP Chemicals; *frostcs@bp.com*

These two sites are distinctive in their application of Internet technology. The sites did not easily fit into the above categories, but the judges felt that their innovative contribution to the Internet industry is worthy of a special commendation.

□ Launched in January, GE97 provided chat forums, *polling booths*, content from PA News, the FT, the Economist and much more. It was a non-partisan site for anyone interested – on election night, it received 4.8m hits from all over the world. In a four-week period, the site received more than 100,000 hits a week.

□ The BP Chemicals Extranet – a secure network of web sites connected via Internet technology – has greatly improved communications between the company's ship chartering team and external shipping brokers, eliminating a manual-intensive, faxed-based service. The new extranet provides easily accessible information in real-time to users around the world.

مكرر من الاصل

FT IT

Managing information

Here and on the following four pages, FT writers examine ways to measure the effectiveness of IT services – and, in particular, how to control the cost of maintaining them

Measuring the effectiveness of IT systems is never easy

Companies often have no way to measure whether their IT systems are successful, reports **Philip Manchester**

The days when companies bought IT systems as status symbols are long gone. Today, companies need to know exactly how much return they can expect on their IT investments. They need benchmarks that can be used to see how their systems are performing. But it is not easy to measure these.

Consider work to solve the year 2000 date change problem. "How do you measure the return on investment on *that?* The answer could be that you manage to stay in business beyond 1999," notes Philip Crawford, senior European vice president at Oracle, the database software company.

"Traditionally, it has never been easy to prove value for money for IT systems – especially when it involved automation of manual procedures. It is getting easier to measure now we are moving technology from the backroom to the front office. But you need a business plan that drives the use of the IT systems and it must have numbers against it," says Mr Crawford.

Companies often go ahead with IT systems without a clear business plan and have no way to measure whether it is successful or not, he adds. "We were working with a large multinational recently that told us it had the budget – approved by the chairman – to install a new system. But when we asked how they intended to measure the effectiveness of the system, they couldn't tell us. It makes it difficult for suppliers to give them what they want if they have not thought it through properly."

Peter McPartlin, director of software services company Logica's business consultancy division, echoes Mr Crawford's observations: "IT systems don't lend themselves to traditional cost/benefit analysis. When we go into a new development, we first set out to find what the business goal is. And after the development, we recommend a review – either by one of our business consultants or an internal audit."

The audit should not be carried out by IT people because it is a *business* issue, he says. "You have to check to see if the business goals are met. The metrics you use are factors such as customer-satisfaction, the churn rate, employee morale – all difficult things to measure."

Mr McPartlin says that Logica uses a 'scorecard' approach that records a range of measurements across the business. "We give the responsibility for this to key business executives. The financial chief, for example, has responsibility for measures such as the turnover of employees, customer-satisfaction and turnround time for orders."

Comparisons

This approach has been formalised by specialists in benchmarking. The Norwegian company, Compass Analysis, for example, has built comparative models to measure effectiveness for a range of different areas of IT, such as data centre networks, application development and outsourcing.

With 600 clients in 25 countries, Compass has built up a database of more than 4,000 comparative studies. The company carried out 470 studies last year for clients ranging from American Express, Lloyds and Midland Bank to AT&T, ICI and British Airways.


Robert Enevoldsen of Compass: 'Companies can set targets and monitor projects, based on comparative data'

"Effectiveness of IT means different things to different people – and it depends on whether you are talking to shareholders, directors or employees. IT is one the many operational tools to underpin a business – but to judge effectiveness, you must look outside IT," says Robert Enevoldsen, director of Compass Analysis UK - *see also report on outsourcing IT services, left.*

"We go to a company and take lots of measurements based on actual results," he says. "These figures are fed into our models and generate qualitative information. We can then judge issues relating to best practice and compare them with other companies."

He points to examples such as the number of times users have to re-start their desktop PCs as a result of software problem or the number of calls a support centre processes problems successfully: "If we find that users are re-booting their PCs twice a week and the best practice shows that this should happen only once a month ,then we have identified a problem.

"Similarly, if a call centre is abandoning two calls a day when best practice records no abandoned calls, we have found another problem we can do something about."

Other possible causes of bad performance identified by Compass include areas such as a lack of standardisation in IT infrastructure and excessive support costs.

Comparative analyses that Compass uses specify actual examples – rather than bald statistics. "We name companies so that our clients can check on the achievements of those who perform well. Our clients undertake to supply data which is pooled and linked to a reference group.

"It really means that companies can learn from others' experiences. Companies can set targets and manage and monitor their projects based on the comparative data."

According to Mr Enevoldsen, Compass's approach is catching on fast – although he notes that it is more advanced in Scandinavia. "Management there take groups of companies and pool their results so that they can share their experiences. It is a generic discipline and you can use it to do cross-industry comparisons."

This form of benchmarking where companies can compare their performance against their competitors – or, indeed, with companies in other sectors – promises to make the business of assessing the effectiveness of IT systems more scientific. It should also make it easier for those holding the purse string to see if they really are getting value for money.


Surrounded by advanced IT systems, US traders take a break on the floor of the Pacific Stock Exchange in Los Angeles. The international financial sector is more dependent than most on effective and reliable IT systems, but in many cases these networks do not land themselves to traditional cost/benefit analysis

Picture by Damian Dovarganes, AP

OUTSOURCING IT SYSTEMS • By Nuala Moran

Price is not the main factor

While value for money is important in IT outsourcing deals, client companies see flexibility and the enablement forchange as the crucial issues

The mainframe is no longer hogging expensive floor space and the payroll has shrunk but how do companies assess if they are getting good value for money when they outsource information technology?

In the early days of outsourcing, or facilities management, the aim was to cut costs. It was a straightforward matter to compare the cost of running IT in-house against the outsourcing bills, to check that the promised savings were being delivered.

Today, IT is at the heart of competitiveness and companies cite a range of motives for outsourcing, making it more difficult to assess value for money. Although reducing costs may feature, few companies now put it at the top of their list of reasons for outsourcing. They are more likely to outsource to enable change; to gain access to a greater and more flexible IT resource; because IT is seen as a non-core activity that is taking up management time; to improve the service; or to solve a problem.

"Companies should be very clear about their objectives when they outsource IT – but a lot are unclear and it's hard for them to assess if the outsourcing is meeting expectations," says Robert Enevoldsen, a consultant at Compass Analysis UK, which advises companies on outsourcing contracts – *see also article the main article, above, on benchmarking IT systems.*

Outsourcing has become so fashionable that people are entering contracts without questioning what they want to get out of it. "Outsourcing replaces a company's own people and equipment with a contract. Contracts are fine in a static environment, but IT is far from from static. How can anyone sign an outsourcing contract for 10 years when no one has any idea what IT will look like, even five years hence?"

For example, no company could have foreseen five years ago that the Internet would become central to business strategy.

And change is not limited to IT. The commercial environment will also be changed inexorably. The problem is that flexible contracts, which include clauses relating to updating technology or allowing for commercial upheavals, such as mergers, acquisitions and new business developments, are more expensive.

"What companies have to remember is that IT outsourcing is a contract business. In this respect, it is very similar to the construction industry. Suppliers bid low by boxing in what they will deliver and take profits from changed orders," says Mr Enevoldsen.

Hugh Morris, head of outsourcing at Andersen Consulting, agrees that the issue of value for money has become more complicated. "To get an idea of value there has to be some sense of how IT fits into an organisation's strategy. To hand over to the lowest cost supplier could be the right answer. But if IT is strategic, you have to look more at the capability of the supplier and consider elements such as the ability to get things done in a particular timescale."

As organisations look for value, they are realising they should measure output not input. This is leading to a move away from service level agreements to the concept of the 'balanced score card'.

"A service level agreement says things like, 'Make the mainframe available 7am to 10 pm, six days a week, with no more than 0.01 per cent downtime.' On a score card, the company would ask the question: 'During the last quarter, was the service we received sufficiently responsive to our business needs?' These two are whole worlds apart," says Mr Morris.

Compass sees its role in advising on outsourcing as making sure clients understand what they want to get out of the contract. This makes it possible to put some measurements in place as part of the contract so they can assess what the supplier is delivering.

> 'Never outsource IT to get rid of a headache. How can a headache be put into a contract?'

Mr Enevoldsen advises that companies begin by comparing, or benchmarking, their systems against peer companies. "Before outsourcing, it is important to know the market cost of in-house services. Until they take the temperature of the market, they won't know if they're getting good value for the money they are now spending on IT."

He cautions firmly against outsourcing IT to get rid of a problem. "My advice is: don't outsource to get rid of a headache. How can a headache be put into a contract? We would always advise clients to get their systems into shape *before* they outsource, or at least to be able to give suppliers a detailed run down of what needs to be done. If these measurements are done up-front, the company is in a much stronger position when it comes to negotiating the contract."

Bob Guppy, head of outsourcing at Integris says its approach is to encourage clients to value IT before letting contracts and to re-evaluate it throughout the contract. "We have regular meetings, on a quarterly basis at least, to review value for money and flexibility of service. We try to pick up on changes that are needed without charging more money."

Compass suggests that clients put a benchmarking clause into their contracts *(see report, above, on IT effectiveness)*, to allow them to assess how the service they receive compares to that of peer companies and to companies in other sectors.

It is not possible, however, to compare contracts. "There are a lot of issues that make this very hard. For example, various levels of service, different length of contract, exclusivity, termination and renewal – which means comparison is rarely 'like with like'."

The difficulty of making comparisons also occurs in the tendering situation. "Even if companies specify the format of bids in their invitation to tender, quotes are often hard to compare. This means that, whatever else is outsourced, good contract assessment and contract management skills must remain in-house."

He does not recommend "open book agreements", in which suppliers tell clients what their profit margin is, as a route to ensuring value for money. "This can cause all kinds of difficulties. At the end of the day, outsourcing is a business arrangement, so there will be a profit. The problem with 'open book' is that clients are tempted into the micro-management of the supplier."

As part of a move into more sophisticated arrangements, some outsourcing suppliers, such as EDS and Andersen Consulting, offer shared-risk contracts in which their payments are linked to achieving stated business objectives. Mr Enevoldsen agrees that, in some cases, this may be a good route to ensuring that IT outsourcing is good value for money, but he cautions that shared risk can mean the supplier gets further and further into the business, and may be hard to extricate. "If you do get involved in risk/reward then the outsourcing supplier must be prepared to share the good times and the bad times."

Although he believes that companies should look for good value for money, Mr Enevoldsen emphasises that this cannot be assessed simply on cost. "Don't choose on price. Clients are going to be working closely with the supplier company over a number of years, so there has got to be a cultural fit."

Critical issues in IT systems management: see Gartner Group's research findings, pages 20-21.

FINANCIAL RESEARCH NETWORK • Case study by Joia Shillingford

Swift facts for stockbrokers

NatWest Markets' new intranet gives analysts and sales staff rapid access to research

NatWest Markets, voted number one for UK broking research in this year's Reuters' survey, is putting all its research on to an in-house Intranet.

On the intranet (or private 'Internet') analysts and sales people at the company will be able to find research produced in the company's offices around the world. NatWest Markets is using off-the-shelf software - Research.Net from UK-based Blue Curve - designed for brokers' research.

Paul Rinaldi, assistant director for research at NatWest Markets, says it took six to eight weeks to get the pilot up and running, including putting all the research into a Lotus Notes database.

The pilot - begun in November last year - was successful and the system is being rolled out to 220 sales people and analysts in Europe. It will then be introduced to staff in other parts of the world. The drive for the system came from users, according to Mr Rinaldi. "We were asked what we doing about distributing research online.

"We're delivering it internally first," he says. "The longer-term aim is to deliver the content to our Internet Web site. We've shown the system to various customers and received good feedback."

As well as serving clients better, Mr Rinaldi says "We have a phased plan of paper reduction internally. Research.Net means that we will use less, though we won't stop dropping paper on people's desks as soon as it's rolled out.

"However, some people have already said they won't need the printed report on their desks now."

Most research documents are loaded on to the Intranet by research assistants, but intraday notes can be distributed over the system immediately by analysts themselves.

Benefits

One of the advantages of the system is that sales people can gain fast access to research even while they are on the phone to a client. They can also see at a glance, the buy, sell or hold recommendations on a stock.

As well as reports, NatWest has included comparative statistics, so that a dealer could compare the performance of an equity against the average for its sector.

Although stockbrokers use complex financial modelling tools, few are familiar with Internet technology, so NatWest Markets is training staff on how to use it. Its research system has been designed so that research can be tracked down easily – either using an Internet browser or Lotus Notes.

The same data can be looked at in different ways. For example, research on a particular equity can be looked at by date, company, sector, country or region.

The opening menu also includes headings such as daily comments (morning meeting notes); publications; equity ratios; economic forecasts. And NatWest have customised parts of the system like the daily-comments templates.

A few details are being ironed out, such as how to index research that does not relate to a specific equity, country or sector. Or which chronological date format to use when research is input from overseas.

Technically, NatWest Market's research system runs under Windows NT, a Microsoft operating system, and makes use of Lotus Domino (which can replicate databases across different servers) and Lotus Notes groupware and conferencing software. It also uses the Java Internet language and integrates with the Sybase database.

The cost of the system is said to be "a few hundred thousand," but the company won't need to add any extra staff to run it. And application support and development is being outsourced to Blue Curve.

Mr Rinaldi believes the system will pay for itself in paper reduction, especially when it starts to be distributed externally. More importantly, it will improve the communication between sales people and analysts – keeping the company ahead.

Information System Management Awards • Submissions invited by the British Computer Society

Prestigious awards open for nominations

An annual UK award for information systems management has opened for nominations, with support from the Financial Times.

The IS Management Awards are *organised by professional body* the British Computer Society, in association with the Financial Times and with sponsorship from Blue Circle Industries, Deloitte & Touche, KPMG Impact, Unisys, and Woolwich.

The awards recognise achievement, improvement and innovation in IS management in the UK.

The judges look, in particular, at the impact on business performance, the relationship with end-users, and the management of development or operations or both.

The award typically goes to a *team rather than an individual.*

Past winners report benefits in terms of heightened status for the IT department and for their entire organisation.

"The profile of IT in the company has been enhanced, suppliers have proved eager to associate themselves with our success – and the award has helped in recruiting quality staff," says Nigel Powis, IT director at P&O Ferries, which won in 1995 after a massive process re-engineering programme.

Team's success

Ian Tighe, IT director at London Ambulance Service, agrees: "Our control room was buzzing for two weeks after the award ceremony, and it was great to see people holding their heads high after so many depressing years." Mr Tighe led the new team that successfully developed a command and control system, thus ending 10 years of project disasters.

Eagle Star Life, the 1996 winner, reaped commercial rewards.

"Sales consultants used the award as a further sign of our improving corporate position," *says business systems development manager* Mark Sheridan.

The other past winners are Ford, Tesco and Cheshire County Council.

The entry procedure starts with a simple nomination form, due in by December 15. Entrants are then asked to prepare a more detailed submission by January 31.

Selected entries are investigated by a panel, and three finalists make a presentation to a judging panel of senior executives.

The awards are presented at a prestige dinner in May: speakers have included *IBM chief executive* Lou Gerstner and Sir Michael Heron, chairman of the UK Post Office.

Nomination forms are available from Maria Teresa Muir on (01793) 417417; fax (01793) 417432; e-mail mtmuir@bcs.org.uk.

John Kavanagh

THE FUTURE OF IT MANAGEMENT • Gartner symposium report by Paul Taylor

The life-cycle changes gear

Over the next five years, 70 per cent of IT departments in large and medium-sized enterprises will systematically seek to reduce technology complexity as a key means to improving IT effectiveness

Many companies continue to struggle with the bewildering pace of change in communication technologies, the wide range of products and services to review and acquire, and the need to reduce the total cost of ownership for their information technology equipment.

Analysts at the Gartner Group report that organisations have begun managing *equipment life-cycles as* part of an overall IT asset management strategy designed to reduce costs by implementing standards and practices. These businesses recognise the value that equipment life-cycle management delivers as an operational strategy to tame the increasingly heterogeneous computing environment and to facilitate new technology implementation.

The industry is exploring the business, technical and financial practices needed to optimise equipment acquisition, manage portfolios and retire obsolete equipment.

* * *

☐ **What critical issues are driving organisations to revamp their equipment life cycle management practices?**

When computers were *first* introduced, they were generally used to provide computation support and improve productivity for organisation-wide tasks, such as payroll or manufacturing cost accounting – this was the computing-assisted enterprise.

In the second phase, appli*cations were developed spe*cifically for departments but the organisation chart typically defined the scope of computing technology and its application – this was the enterprise-defined computing.

According to Gartner, "we are now entering a third phase where technology has *transcended the organisation* to become distributed and shared throughout". Many of the same tasks are being performed but they are being done in innovative ways - this is the computing-defined enterprise.

Competitive pressures are pushing organisations toward the "computing-defined" *enterprise where tech*nology is enabling whole new classes of business activity to emerge. The test is whether the business could be conceived of without computing technology.

Such competitive advantages do not come without higher costs and risks. Because of the greater *dependence on technology*, Gartner argues that computing-defined enterprises cannot operate any other way.

However, as the organisational use of computing has evolved, the underlying system platforms, created at each phase of the evolution, remain largely intact. Thus, payroll and general ledger systems often still run as mainframe-based data centre applications. First-generation client/server implementations, underpinned by midrange computing platforms, created online access but were often batch processed each evening. PCs, now the main access for the IT systems, are as mission-critical as the systems they access.

"New technology implementations, often built layer on layer, are creating increasingly complex and fragile computing environments that resist re-engineering efforts and reduce an organisation's ability to deploy new technology," says Gartner consultants.

They argue that a complete system re-organisation usually occurs either because the company decides to deploy a new, *enterprise-wide* vertical application (such as SAP's R3 or PeopleSoft) in order to create competitive advan-

GartnerGroup

European symposium

This week in Cannes, in the south of France, delegates to Gartner Group's annual European Symposium are hearing Gartner consultants give their views on some of the hot issues in IT management.

Entitled 'The Future of IT' *the four-day symposium,* which ends tomorrow, looks at the priorities for IT directors and chief information officers. In this article, Paul Taylor presents *edited highlights from the* symposium.

The ITxpo event, with displays by leading IT suppliers, runs alongside the conference. Details can be found on www.gartner.com

tage or because, in response to a competitive threat, a company chooses to re-archi*tect systems* (*such as in the* courier delivery market).

Over the next five years, Gartner believes that the focus of client/server system investments will be to deliver an affordable and reliable systems platform capable of delivering mission-critical computing to the enterprise.

Client/server systems have become mission-critical - many organisations cannot operate without them. Now, the challenge to those involved in distributed systems acquisition and operation becomes running the environment with a high degree of reliability and cost effectiveness.

Different organisations approach the problem from different angles but most result in initiatives focused in one of three areas: reducing total cost of ownership, restructuring IT procurement or creating an IT asset management initia*tive*.

"Regardless of the starting point," says Gartner, "the core objectives and the steps are similar." Organisations conclude that they must begin operating their distributed environments with the same discipline and rigour that have long been a hallmark of mainframe data centre operations.

All along the way, tight adherence to technical standards, disciplined procurement practices and comprehensive asset management *and tracking* are being identified as requirements and are being implemented.

By 1999, Gartner believes that three-quarters of medium and large-sized organisations will have initiated asset tracking programmes for all equipment classes and 40 per cent of those will move to integrate asset management practices with other IT management tools.

* * *

☐ **How will organisations apply the lessons of total cost of ownership to reduce equipment life cycle costs?**

Through 1996, less than 20 *per cent of medium-to-large* organisations had established IT equipment life cycle planning (ELP) models. However, by 2002, 35 per cent of the remainder will embrace ELP as a tool for managing IT acquisition, optimising their IT portfolios and justifying IT expenditures, predicts Gartner.

As IT becomes a pervasive tool in many organisations, and expenditure grows, more scrutiny than ever is being focused on IT spend. As a result, the financial disciplines long applied to other types of capital expenditure will increasingly be required of IT financial management.

"We see a developing crisis in many organisations' IT financial management practices because IS organisations cannot concisely explain where money is being spent, what has been *achieved by expenditure and* how much more will be required to achieve the original goal," warns Gartner.

This lack of financial reporting discipline has been an underlying motivation for IT outsourcing in many organisations. Establishing IT asset accountability is the first step, capturing expendi*ture is the second and equip*ment life cycle planning is the third. Through 2002, virtually all IT equipment will retain less than 10 per cent of its initial purchase price after 36 months.

Generally, used equipment that is less than two years old can be re-deployed by someone as a 'computer'. *Equipment that is three to* four years old, however, generally has value only as spare parts.

"Because the value of the equipment is so limited, businesses should assume that initiatives to take control of used and surplus equipment may actually cost money. In other words, the *proceeds from selling the* equipment may not be adequate to cover the costs of de-installing, collecting and disposing of it in an acceptable manner."

Over the next five years Gartner predicts that 70 per cent of IT departments in large and mid-size enterprises will systematically *seek to reduce technology* complexity as a key means to improving IT effectiveness.

One of the cornerstones of industrial engineering is product simplification. In the IT world, enterprises remain in a headlong dash to deliver functionality. First, it was PCs on every desk; then the network; then newer, easier-to-use graphical user interfaces; and then Internet connectivity.

The five-year forecast for new technologies looks just *as formidable* but Gartner says that many organisations are coming to the con*clusion that future success* relies on a rational foundation.

"*We recognise a trend that* grew out of initiatives to enhance system manageability, improve reliability and reduce costs: a new, and growing, realisation that environments must be simplified and streamlined," says the consultancy.

Enterprise asset management has a significant impact on end-user operations. But the current end-user perspective is that it potentially limits options, reduces flexibility and becomes *another* "*bureau*cratic" slowdown. Through 2001, the sustained success of asset management initiatives will be defined by the implementation team's ability to deliver value from the perspective of the end-user, says the Gartner Group.

In particular, business-to-business web commerce will have an impact on more than 90 per cent of enterprise procurement organisations by 1999, changing the speed, process and cost of the procurement process.

"Under pressure to deliver a world-class procurement environment, it is tempting for enterprises to upgrade purchasing strategies and software, especially now that the market is filled with claims about solutions being 'internet-enabled' and *responsive to emerging* '*elec*tronic commerce'.

"Buying and selling processes are undergoing a major upheaval as companies begin to use electronic commerce. But, although electronic commerce usage will rise through 1998, return on investment will remain elusive through 1999. We *continue to recommend* that organisations treat entry into electronic commerce as a long-term investment."

By 2000, those companies which persevere with their electronic commerce strategies will become highly competitive and electronic commerce 'channel masters' will emerge from their ranks. *Electronic commerce* will then begin to move from an emerging tool to a competitive mandate, say the consultants.

Gartner analysts argue that organisations should benchmark 'pre-' and 'post-electronic' commerce procurement strategies. Successful electronic commerce *strategies should enable* them to send bid requests to a wider range of potential suppliers, gain more access to information about products or services, gain quicker knowledge of suppliers' ability to fulfill orders and get order and shipment status information faster.

* * *

☐ **What is the cost of obsolete equipment and how can it be retired?**

According to Dataquest, a Gartner Group company, US businesses will 'retire' 14 million PCs this year - a process presenting unique challenges and costs that organisations seldom consider.

A significant volume of retired assets still goes unnoticed, accumulating in storage cupboards and warehouses.

"Although temporary elimination is often the most expeditious alternative, it is also the least effective," claims Gartner.

Ultimately, organisations *will need to develop strate*gies for disposing of these assets. Many use a variety of programmes - for example, cascading equipment down through an organisation, employee purchase programmes, donations to charity and periodic sales - often *in an ad hoc manner*. But others, overwhelmed with the task at hand, simply throw equipment away.

"Lost in the discussion of 'how' we dispose of this obsolete equipment is the question of 'who' actually does it. Many organisations have learned that if the sale of other scrap or salvage material is left unmanaged, it often creates unintended consequences. The challenge for IS organisations is to begin *thinking* of equipment disposal and sale as a necessary and ongoing part *of* day-to-day operations."

Effective strategies to harvest value from surplus or obsolete machines will consider and quantify the intensive labour required to prepare and manage the disposal process and that most will conclude that methods actually require *more labour and support* than the value of proceeds.

The consultants suggest the following guidelines:

- Companies should only attempt one planned equipment cascade during the hardware's lifetime.
- When labour costs are factored into employee sales of surplus IT equipment, most organisations will discover that proceeds do not *cover expenses*.
- Sales to employees should be viewed as an adjunct of employee training and benefit programs, not as a way to recover value from obsolete IT equipment.
- Donating surplus IT equipment to various charities – while appealingly altruistic – requires planning, machine preparation and documentation.

Gartner also draws attention to the risks associated with IT equipment disposal, such as giving away access to the enterprise network, in the form of embedded log-on codes, and inadvertently distributing proprietary data left on equipment that was sold

There is little economic value in a used computer. Virtually no market exists *for machines that are three* or more years old. Users often tell the consultancy that they have better equipment in their homes than they do in their offices. At the low end of the market, new PCs are being offered at the $1,000 price point.

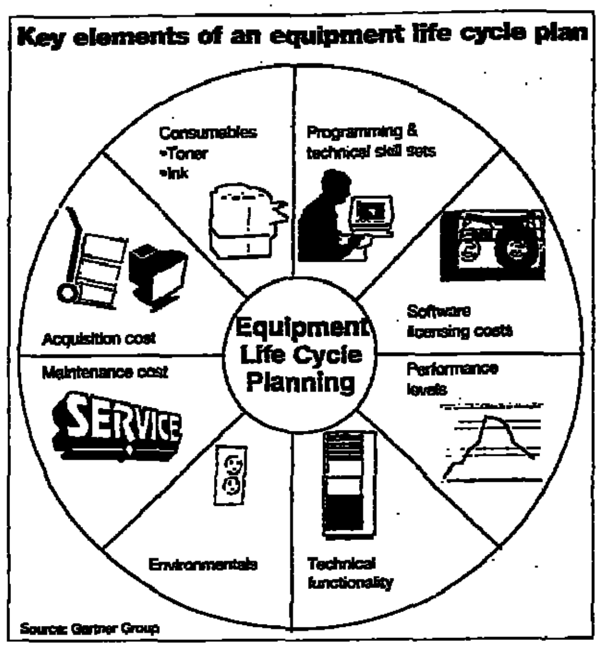
Beyond the *purely eco*nomic arguments, Gartner notes that there are several non-government related initiatives being explored in the US and Europe that will increase recycling, most notably the 'Design for Environment' programme and recommendations under ISO 14000. By 2002, Gartner pre*dicts* that 70 per cent of medium and large-sized organisations will *formalise* their *surplus* IT equipment disposal routines.

"Through the five-year planning *period, most IT* organisations will conclude that the risks involved with unmanaged equipment disposal are unacceptable and they will rationalise their disposal routines," the consultants believe.

Many organisations will also decide that the effort required to do this is most effectively done by an external services provider.

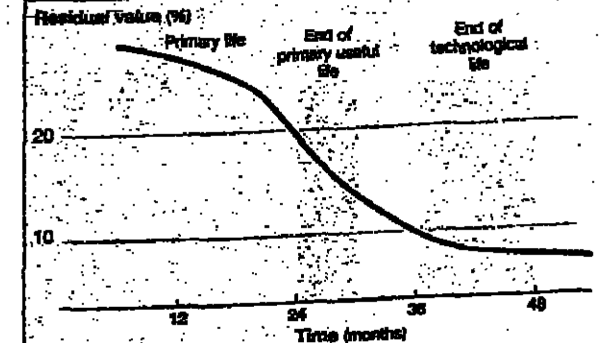
Whether it means expanding their relationship with their reseller or lessor, or using one of the newly evolving IT used-equipment services providers, this will be a likely implementation for many organisations.

Key elements of an equipment life cycle plan



Source: Gartner Group

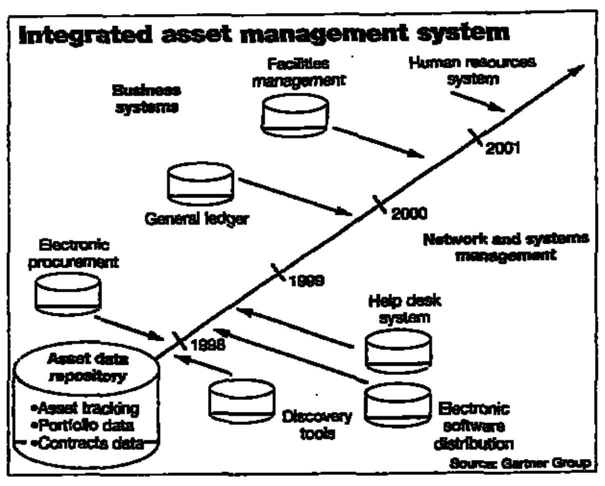
Residual value vs technological life of IT equipment



Time (months)	Event	Residual value as % of purchase price
0	Equipment purchase	70%
6	First round of discounting	55%
12	End-of-life discounting*	45%
15	Product discontinued	30%
36	Salvage price*	10%

Source: Gartner Group * replacement models introduced

Integrated asset management system



Source: Gartner Group

VALUE FOR MONEY • By George Black

Users rebel against rising PC costs

Large companies are turning their attention to how they can cut the cost of *supporting their vast numbers of personal computers*

The support element of the cost of owning a personal computer has risen to more than three-quarters of the total price and has now become a target for company accountants.

It could well rise further *as the new corporate intra*nets are likely to bring far more frequent changes to desktop systems.

Software distribution, configuration management and running a helpdesk are three of the aspects of support that contribute most heavily to the cost.

The greater complexity of *networks, since they shifted* to a client/server structure, has increased the number of problems affecting users and the cost of solving them.

A couple of years ago Gartner Group consultants created amazement by stating that it cost a company $40,000 to own a PC for five years.

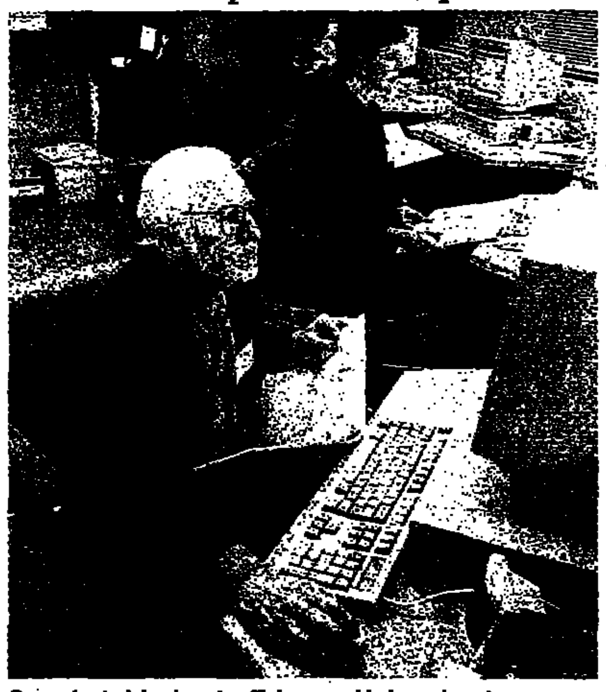
How accurate the figure was is not the point. It was a revelation to most people that the *hidden* costs of software, service and support for the desktop were many times more than the purchase price of the hardware.

Until then most managers had thought PCs were simple machines which did not *need much managing*. Because the cost of buying PCs even in large volumes was so much less than that of buying a mainframe, it had been the conventional wisdom that downsizing to PCs would save money.

In questioning this, Gartner began a prolonged and heated debate in the industry about the cost of ownership of information technology, particularly the growing proportion on the desktop, and how it could be reduced.

This led to the question whether the PC was needed at all and whether it could be replaced by a slimmed-down "network computer", managed from a central system and receiving its software across the network by using new languages such as Java.

Intel and Microsoft, two companies which dominate the corporate desktop in hardware and software respectively, hastened to



Computer training boosts efficiency and helps cut costs

reject this hypothesis. The network computer would not work out much cheaper than a PC after taking into account the extra cost of bandwidth, it was argued.

In response to the challenge Intel launched a "managed PC" initiative aimed at cutting the cost of operating desktop equipment.

*Rod O'Shea, Intel's archi*tecture manager for northern Europe, says that soon network managers will be able to check all the details of their PCs and to deliver software upgrades remotely.

PCs will be serviced remotely overnight and notebook PCs will be serviced by a helpdesk when plugged in to the network in a remote office or hotel bedroom.

Microsoft introduced its own initiative called Zero Administration for Windows, aimed at retaining the loyalty of corporate users by making its next generation of operating systems more cost-effective.

These innovations could cut the cost of ownership more than the switch to NCs might do. "There is no need for such a radical change to the infrastructure," argues Mr O'Shea. "The NC may find a niche as a replacement for mainframe terminals, but it will not become a mainstream device replacing the PC."

The issue is still unresolved because most companies have not yet evaluated NCs or have decided it is too risky to contemplate such a switch until more bandwidth *is available and* servers become more powerful.

They cannot at present *guarantee the uninterrupted* access to the server which would be essential for an NC-based network.

Even when bandwidth become freely available and more powerful clusters of servers based on Microsoft's Windows NT operating system are developed, it is still uncertain whether the cost of ownership argument will drive users to adopt the NC.

Meanwhile, concerns about costs are pressing. Most large companies have begun projects to study the cost of ownership of their systems. Many have been vigorously tackling the hardware and software elements.

Bill Kirwin, a Gartner research analyst, says that companies which have adopted the best practices have cut the cost of ownership by 25 per cent or more, mainly on labour costs involved in helpdesks and software expertise.

Many large companies have conducted systems audits and thereby begun get a grip on what they own. In the process, some have discovered that they greatly under-estimated the number of PCs in the business, since so many were *acquired by channels other* than central purchasing.

Upgrading PCs is often a good investment, says Mr Kirwin. "Keeping them for more than four years may look good to accountants, but it tends to increase costs because you have to support multiple generations of software," he notes.

Many more organisations now use the negotiating power of a bulk purchaser from a single source to avoid paying higher prices than they need. It has become common to standardise on a single hardware manufacturer or configuration or both. Also users have been helped by fierce competition between suppliers, which has brought unit costs down.

Many have also investigated their use of software, enforced standards and *rationalised* purchasing. They have tightened up on software licences so that they do not cover more users than they need – and all users are covered so they do not risk legal action against them by suppliers.

Now they are looking into the cost of support. Many have no idea how frequently their machines need support or service or what for. Now they are starting to study this, some users report that installing configuration management and *software licensing tools* has saved them huge amounts.

It seems unlikely that concerns about the cost of ownership of PCs will stem the tide of downsizing, which is reducing the number of mainframe users to those who have no alternative regardless of cost.

Mark Hornby, corporate development manager for Seagate Software, which sells system management software, argues that the cost of ownership of PCs is still lower than that of a mainframe and will fall further while that of the mainframe has little scope for further reduction.

RUNNING THE SYSTEM • By Paul Taylor

Farewell to the centralised IT department

Increasing demands for new business solutions will consign the traditional, centralised IT department to history

The centralised IT department is on its way out – even though it has never been busier, according to analysts at the Gartner Group.

Pinched between the packaged application market (and a managerial desire to remove service issues from the business agenda) on the one side, and the decentralising effects of today's information technology capabilities on the other, the traditional, centralised corporate IT department with an enterprise-wide mandate to provide IT capabilities to any, and all, comers is moving into history, say the Gartner consultants.

Rises in IT staff remuneration are playing no small part in bringing a large investment in IT staff to an end as well, says Gartner. "Completion of the year 2000 task will be, for many, the capstone to this phase of IT's deepening embedding in the enterprise."

But the consultancy cautions that this does not mean wholesale outsourcing of IT services (although most enterprises will enter into one or more outsourcing contracts during the next five years), nor does it mean anarchy will rule.

GartnerGroup

European symposium report

"The revolution sparked, first, by the PC, then, by local area networks and, finally, by client/server computing and the internet is about to be reined-in and condemned to history as well. Five years from now, the typical large and complex mid-size enterprise will have more consolidated IT capabilities than it does today," the consultancy predicts.

* * *

□ **How should the IT department transform its development practices to meet the challenge of accelerated demand for IT solutions?**

The *raison d'etre* of the IT organisation has always been the need to service business requirements. Yet, in many organisations, that need is coming to an end. Driven by the capabilities of the application suites now available – for example, Baan, Oracle, PeopleSoft, SAP and J.D. Edwards – more than 90 per cent of transactional needs are now satisfied "out of the box".

Furthermore, the business in general is maturing, recognising that there is often limited to negative value in customising IT solutions to be a "perfect" fit to the organisation as it currently exists: business process re-engineering efforts have taught that the business, too, can adapt.

"While competitive advantage may still be sought in producing formal workflows – a customer-centered approach to business events, as opposed to the process-centered approach of the transactional packages – and in building external linkages using electronic commerce solutions, for example extranets, these same enabling technologies make it possible for end users of IT to construct their own decision support, collaborative and ad hoc workflow capabilities."

While these solutions may lack efficiency, they offer effective and timely delivery for limited needs.

Leading-edge businesses and certain industries – for example, financial services – will remain dependent on portfolios of applications developed in-house but many other industry-specific packages will enter the market as licensed products during the next five years.

Looking ahead, Gartner predicts that, "by 2003, relationship management will evolve into 'endeavour management' in 50 per cent of enterprises, 30 per cent of endeavour managers will be located in a consolidated business transformation unit and 70 per cent will report directly to relevant business unit managers".

Three years ago, most IT departments did not have relationship managers, but today a majority do. And the role of the relationship manager continues to evolve from a focus on service issues towards a mixture of endeavour management and service management, today, and an expected focus on business endeavours, tomorrow. This final transition, says Gartner, will transfer many relationship managers into the business itself, where they will become internal consultants to the business management team.

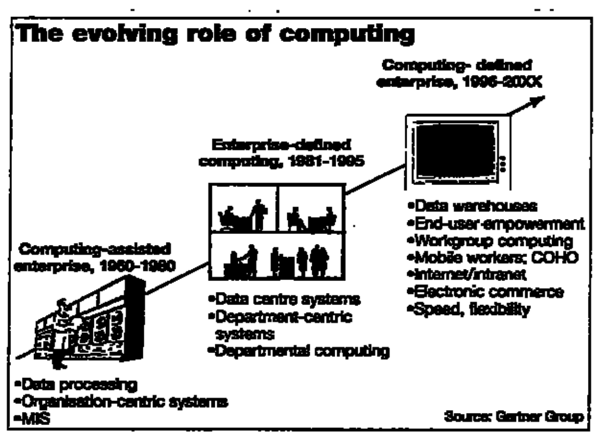
Efficient communication networks are vital in business: the outsourcing of IT services is increasing steadily

Meanwhile, by the year 2003, Gartner analysts predicts that three-quarters of development resources for a typical project will not be employees of the enterprise but will be sourced for the engagement only.

"The escalation in compensation for legacy skills and some package and leading edge skills, and the destabilised labour markets in most of North America, parts of Europe and some areas of the Pacific Rim, highlight the economic underpinnings of the new sourcing strategy for development – spend freely to retain highly leverageable skills, and source the rest.

"As demand for consulting continues to outrun supply, project management skills remain a key internal capability for most enterprises. Certain other skills – because of their potential to unlock 'free' productivity, or to differentiate the enterprise in the marketplace, or to assist end users in getting value from collaboration or information-sharing services – also remain in demand and justify internal staff where knowledge of the enterprise and its capability to exploit opportunities.

"For all other development-oriented skills, sourcing strategies that focus on 'just-in-time' delivery of staff will emerge. This suggests that current trends toward decentralised development will migrate into decentralised user support capabilities; maintenance, in turn, will be deemed 'outsourcable' as legacy maintenance becomes an increasing portion of the enterprise's cost of IT."



Researchers at Gartner predict that by 2003 internal development capabilities will be focused on one or, at most, two application areas designed to leverage the organisation's competitive strategy. Other areas will be handled by packages, external services or end-user tools, even if these are sub-optimal on a project cost basis.

Most applications in 80 per cent of enterprises' portfolios will be maintained by external resources and 80 per cent of enterprises will have permanent portfolio transition strategies in effect by 2003, Gartner believes. "Maintenance remains the single greatest factor holding the development organisation together, but maintenance, as we have known it, is coming to an end," the consultancy claims.

A sharp rise in interest in offshore maintenance and 'infrastructure plus maintenance' outsourcing deals are the first indications that enterprises are willing to consider trading long-standing working relationships and 'knowledge of the application, the business and their history' for lower costs of support.

This move will herald a shift in the expected future of an IT investment. Rather than the traditional 'sunk cost' approach, which led to enhancement after enhancement, applications will be seen as 'time-limited' (as packages and productivity tools already are) and thus as items to acquire, hold and replace rather than maintain.

Lowered enhancements, in turn, make outside maintenance more practical – a virtuous circle. Without maintenance as the glue, internal development groups will disband into 'skill pools'.

* * *

□ **How should the IS organisation transform its operational and support areas to meet the service needs of an increasingly mobile and global user community?**

Gartner addresses this issue by posing a series of further questions:

● When can an enterprise's Web site be shut down?
In a global economy, it can't: it is always prime time, somewhere (or else the Web site serves no business purpose).

● When can an enterprise's extranet links be shut down? Unless its trading partners agree, they cannot. Likewise, partnerships and virtual corporations all must agree, or trust is lost.

● When can an enterprise's internal communication and decision systems be shut down?
When employees who use these systems travel; productivity is lost (perhaps even deals are lost) when they are away.

The demand for continuous operation, worldwide, continues to spread from one industry to another as the joint impact of globalisation and broader enterprise interests becomes the normal mode of operation.

Manufacturers, distributors and other sectors are now facing this demand – faced first in the financial sector – for heightened levels of operations and support. Whereas internal transactional systems could be taken down and made 'unavailable' periodically, external relationships that are unavailable signal the message: 'deal with a competitor', warns Gartner.

While, today, operations in the typical IT organisation represent the most efficient and service-conscious part of that group – and are most often consolidated to improve service – few enterprises can afford the complexity of service required to compete in the 21st century, the consultancy suggests.

"By 2003, more than 70 per cent of enterprises will acquire at least 25 per cent of their operational services for networks and application processing through external service providers rather than operate their own infrastructure."

Similarly, by 2003, the group believes that a quarter of all enterprises will acquire external services based on business processes and/or application suites rather than by assembling a portfolio and having the facility managed as an IT contract. So, can outsourcers do a less expensive job than an internal IT department?

A significant number of businesses actually manage to meet or exceed typical outsourcer efficiency levels. Outsourcing in the future, however, will be more driven by desires to 'clear the desk' of service issues, provide continuous service, or to outsource business processes than by an efficiency-based business case.

"In the next century, outsourcing is as likely to turn on the total cost to own and operate a process (or at the least, an application) as it is on the cost of IT itself. Packages, for instance, offer an opportunity to leverage package maintenance, provide replicated capabilities for continuity of operations and simplify inter-enterprise linkages," say analysts.

Business process outsourcing, too, takes work away from the IT operation in favour of the process outsourcer. As a first stage, inter-business-unit and inter-public-sector-organisation 'mergers of interest' will continue to predominate, as these units seek to gain efficiencies through internal outsourcing between agencies or business units. Later, convergence between trading partners will couple with external offerings to generalise the opportunities available in the market.

By 2003, 60 per cent of enterprises will require internal support organisations to add value by working directly with end users to increase their productivity: product and usage support will migrate to training vehicles embedded in, or conjoined to, applications or product speciality consolidated external help desks.

Service desks/help desks, maintenance staff and other IT professionals often fail to actually help end-users do their work, claims Gartner. Often, the assistance from these desks is either product-related or kept at a distance – "I'll send you the report once I've created it."

Basic IT skills, however, will increasingly be assumed, just as simple literacy and numeracy are assumed today for employees, causing a transition from these types of support to direct support of people and their work.

Most service capabilities will migrate to the business: they will be logically consolidated but physically distributed. This will ensure that mobile staff have access to service using local staff and that hands-on demonstration/creation of 'informating' tools can occur. Coupled with learner-paced and computer-mediated training as well as embedded process help, user-support will move away from the technology and closer to the work each user does.

* * *

When should organisations consider an internal service business model for providing IT?

About 20 per cent of enterprises are choosing to take up the challenge of 'what follows IT' by converting the IT organisation into an internal service business (which may or may not seek external clientele and profits).

The use of a business unit and a corporate shell allows the enterprise to isolate the escalating remuneration packages for IT professionals, adjudicate priority disputes through a pricing mechanism and handle internal depreciation on the application portfolio without otherwise modifying business practices. Profits, in turn, may be sought by converting needed in-house applications into packages, providing trading partner support and leveraging developed IT competencies.

In addition, companies in similar industries are pooling their IT resources to create common IT vendors designed to serve their needs. An internal vendor organises itself as a subset of the external services market – it contains consultancy-style practice areas, resource pools that parallel the contractor market, infrastructure outsourcers/facility managers and so forth.

* * *

□ **How should the IS organisation transform its planning and relationship management capabilities to balance the enterprise's often conflicting demands for IT services?**

For years IT managers have concerned themselves with alignment: making sure that IT investments, IT plans and IT activities match their business counterparts.

Two key lessons are being learned by the business managers of the typical company today. First, packages form a 'good enough' base in the portfolio to run most business activities, and, second, a failure to consider the long-term consequences of an IT-related decision leads to higher costs in the future.

But with today's package suites, how much of the content of the IT plan is still relevant? The data architecture quickly becomes the package's data store; the infrastructure, the requirements of the package.

A high proportion of the businesses that cannot use these package suites fall into that category because their businesses are not unified or because their market sensitivity or minimal business

Continued on next page

Time-saving document management system for 80,000 drawings: Raychem Wire and Cable's detailed CAD/CAM drawings can now be made available to sales offices throughout Europe with a new system from Insight Technologies, based at Farnham, in Surrey. Technical drawings that once took up to five days to retrieve from files for sales requests can now be traced and sent in minutes

ONLINE INFORMATION

Business briefing for senior managers

More than 100 high-profile speakers are taking part in the three-day Online Information 97 conference in London from December 9-11.

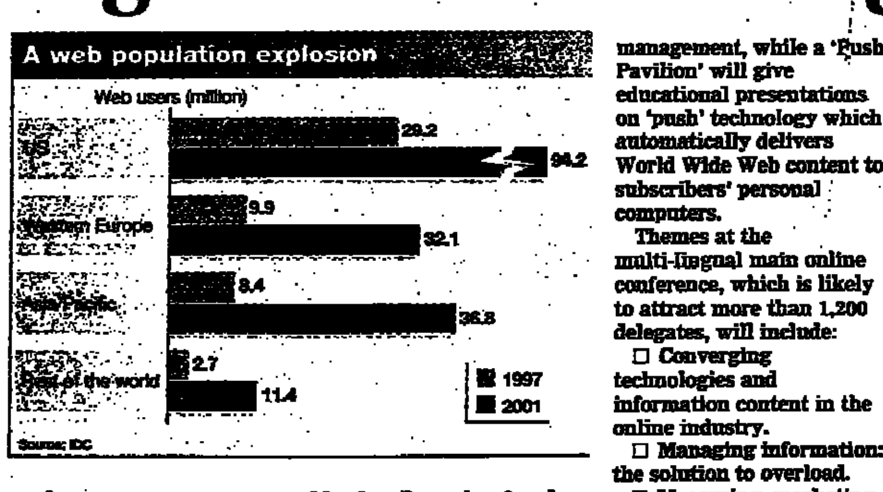
The international event, which runs alongside the Online Information show with more than 300 exhibitors, will take place at the National Hall and Olympia 2.

Wide appeal

Online Information 97 is described as one of the IT world's key events for companies involved in the delivery and use of online information, aimed at a diverse audience ranging from business leaders to broadcasters, marketeers, librarians, publishers and management consultants.

An executive business briefing on corporate information resource strategies is planned for Monday, December 8 at the Novotel, Hammersmith, London. This briefing is intended for senior managers, IT directors, strategic planners and those responsible for marketing, sales, planning, communications and information management.

Delegates will be able to pinpoint their main areas of interest while trainers will be on hand to recommend the most appropriate route through the main conference programme.



Themed product presentations, satellite workshops and tutorials will also take place between Monday, December 8 and Friday, December 12. Special features will focus on electronic publishing and information management, while a 'Push Pavilion' will give educational presentations on 'push' technology which automatically delivers World Wide Web content to subscribers' personal computers.

Themes at the multi-lingual main online conference, which is likely to attract more than 1,200 delegates, will include:

□ Converging technologies and information content in the online industry.

□ Managing information: the solution to overload.

□ Measuring, marketing and maintaining the information asset.

□ The potential impact of 'push' technology.

□ Knowledge management strategies.

□ Developing new revenue models: do publishers see the Internet as a fresh source of income?

□ The information society: new technologies, new jobs.

□ Ensuring the quality of information: real-time, in the areas of finance, science, technology and medicine.

For more details of Online Information 97, telephone +44 (0)1865 388 000; fax +44 (0)1865 736 354. E-mail: registrations@learned.co.uk; other details via www.online-information.com

Michael Wiltshire

INTERVIEW • John Patrick, vice president of IBM

Patrick: new Internet business model are needed

Predictions of an IT visionary

While the Internet may be slow today, that will soon change, says IBM's John Patrick, who is also enthusiastic about the future of electronic commerce. He is interviewed here by **Joia Shillingford**

John Patrick's interest in the Internet began as a hobby. IBM's vice president and Internet guru recalls how, in the early 1990s, he was experimenting with the Net on Saturday mornings and became impressed by the ease with which he could display lists of files on connected computers.

By the time he saw the World Wide Web, with its colour graphics and links between sites, he knew "the Net would be huge". The next step was to persuade IBM. Around this time – 1993 – he began talking to the board. With their support, he began to spend more and more of his time investigating this network of networks.

He was working in corporate strategy, but by 1994 his job was really based around the Internet. Soon, he won the go-ahead to create a virtual Internet team.

"That wasn't hard," he recalls. "There were plenty of Internet enthusiasts 'underground' at IBM. I merely enabled them to 'come out'. What was more difficult was working out where the money was to be made."

In May, 1994, when IBM built its own Web site, "we could see that it was a good way to communicate with our own staff and with others. We said: 'There's going to be a business opportunity here.' So we decided to organise more formally around the perceived business opportunity."

IBM announced that it was setting up an Internet division and, by the summer of 1995, this was in place. Since then, the division has been a catalyst for Internet activity at the company.

Today, IBM is one of the traditional computer companies most active in promoting its Internet expertise. Its Internet advertisements appear everywhere from terrestrial to satellite TV, to in-flight entertainment systems. IBM's message is that companies could solve lots of everyday problems by doing business on the Internet.

But is this true? Everyone knows the Internet is slow – but not for long, according to Mr Patrick. He believes that three developments will radically change the face of the Net: "First, bandwidth, bandwidth and more bandwidth. Second, agreed standards for secure payment. Third, the ubiquity of Sun's Java programming language."

Mr Patrick says: "People tend to think of computers as being fast – and communications as being slow, but it is going to be just the opposite. The backbone of the Internet will be faster than the speed at which you can move data from your PC screen to your hard disk. The rate of progress will be much faster in telecoms than in PCs."

Bandwidth can be broken down into two parts, he says. "The backbone network is rather like the M25 – the round-London motorway system. Then there are the roads connected to it which provide 'the last mile' to the user's house."

He predicts that there will be "incredible advances" in the first area. Among them will be developments in: synchronous optical network *technology (Sonet); asynchronous* digital subscriber line (ADSL) technology, satellite communications, cable modems, and wireless networks. Sonet enables light pulses to be flung at terrifically high speeds through fibre-optic (glass) cables. On standard cables it is possible to achieve speeds of 10 bits per second (bps), but on fibre, gigabit per second speeds are possible.

> 'It is actually safer to send credit card details over the Net than to give them out over the phone'

"It's like the difference between a one-inch diameter garden hose and one with a 27-foot diameter," suggests Mr Patrick. "Already, a 10 *billion bps fibre link is* in operation between California and Denver."

Even faster speeds are possible in the laboratory, he adds. "In the lab, cables can operate at *100 billion bps*, with the potential of a *trillion bps*," enthuses Mr Patrick.

ADSL is also within reach. "There'll be a period of time when there's a lot of asynchronous bandwidth about," comments Mr Patrick.

"This means the data that users receive from the World Wide Web – such as graphics and video – will be displayed *quickly*.

"Whereas information they send will be transmitted at as lower rate, though not necessarily slowly."

According to Mr Patrick, "people have ADSL today at a couple of hundred bps – but soon it will be available at one million 'out', six million 'back'."

"At one million bps, real-time videoconferencing becomes possible. Cable modems for use on cable TV networks also show great promise. They have the potential to provide tens of *millions of bits per second.*"

Even wireless communications, which we normally think of as slow, could become faster. Mr Patrick comments: "When you get down to the science of the matter, there's no reason why data can't fly as fast through the air as over glass and metal. What's emerging is something in a higher frequency range, such as 28 gigaherz. We could see wireless rates of tens of millions of bits per second."

Homes of the future will be receiving data through the air faster than businesses receive it today, predicts Mr Patrick. But who will pay for these higher speeds? Mainly users, he says. *"People pay two-to-five* times more for cable TV than they pay for Internet access," he says. "But that's going to change. The Internet is more useful than cable TV and people are watching TV less and using the Net more."

Discriminatory pricing will also be possible. A new technology called Quality of Service/Class of Service will enable service providers to give certain types of Internet transaction, such as real-time videoconferencing, higher priority than others. They will then be able to charge more for them and guarantee higher transaction speeds.

High speeds alone will not be enough to ensure the success of the Net for commercial transactions. New business models are needed, says Mr Patrick, such as the Onsale.com Dutch auction and the half a dozen other online auctions where customers bid for items such as microwaves or airline tickets. However, successful electronic commerce also requires customers to feel secure about giving their credit card details online – "they needn't worry," says Mr Patrick. He thinks it is actually safer to send credit card details over the Net than to give them out over the phone. He says it is safe to use a credit card on the Net if there is a symbol of a closed lock at the bottom of the Internet browser you are using.

This symbol means it is a secure connection, conforming to the SSL standard for encryption between the client and the server.

IBM is also working on the Secure Electronic Transaction (SET) standard, which is a standard to ensurethat the requirements of the buyer and seller and credit card-issuing bank are all met. Under SET, public and private key encryption will be used to keep credit card details secure.

Ultimately, Mr Patrick believes users will have a digital wallet on their PC where they can click on an image of a Visa card to use it. In addition, when they go to a vendor's site, they will be able to look at a digital certificate to check that it is authorised for secure transactions.

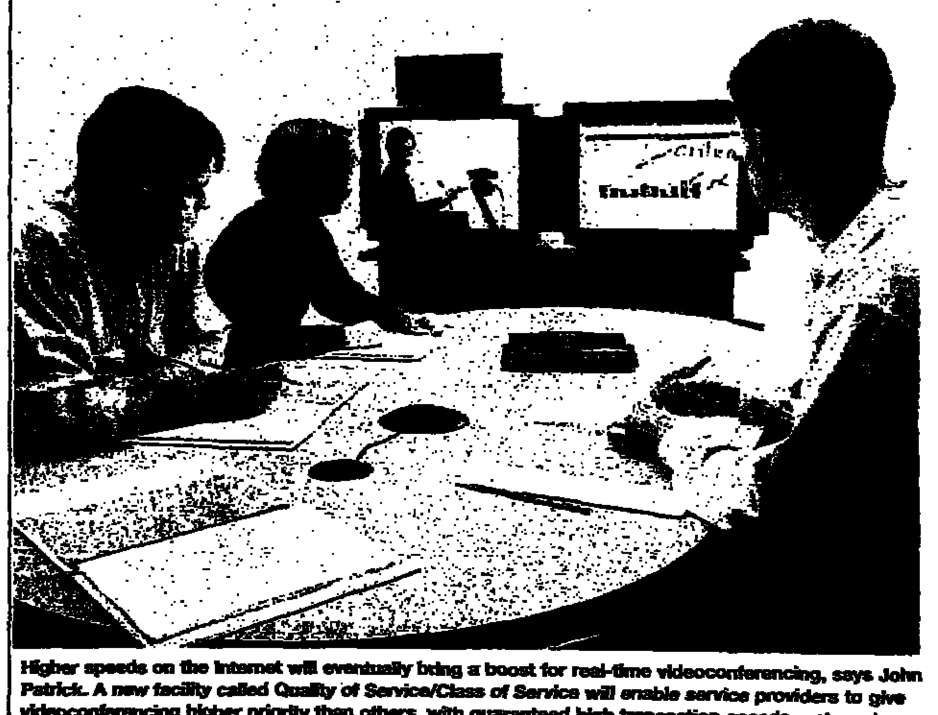
Credit card companies hope to cut losses from fraud dramatically by doing business on the Internet, adds Mr Patrick. One day biometrics could even be used to check that a the user is a bonafide customer. For example, a videocamera on top of a PC could check for a 'face print'.

Mr Patrick believes that, in the future, people will not merely use the Net from personal computers, network computers or TV sets. He thinks the use of Sun's Java programming language in telephones, cars and even domestic appliances, will make access to the Net ubiquitous.

Because Java can run on any computer – or be built into tiny application-specific integrated circuits, it will be the 'glue' that links different systems to the Net.

"Java will enable almost any device to interact on a network and the Web will become the new graphical user interface," says Mr Patrick. "When you look at it that way, [Microsoft] Windows is irrelevant."

When you look at it that way, no wonder IBM is backing the Internet.



Higher speeds on the Internet will eventually bring a boost for real-time videoconferencing, says John Patrick. A new facility called Quality of Service/Class of Service will enable service providers to give videoconferencing higher priority than others, with guaranteed high transaction speeds – at a price. Pictured above is the System 4000 videoconferencing system

RUNNING THE SYSTEM • European IT Symposium

Six guiding principles

From previous page:

strategy to survive and thrive demands IT risk-taking or speed to market.

For example, in a financial institution there is not an IT plan because the 'enterprise' itself is a collection of 'businesses' pointed at a collection of 'markets,' each with its own demands for success.

The result? Information technology planning becomes business planning.

By 2003, suggests Gartner, 75 per cent of organisations will recognise long-term costs in their IT business case evaluation processes and business IT budgets will be required to support a system of consolidated accounts *to handle contracts* and enterprise-wide services.

According to Gartner analysts, the "free ride is over". Specifically, they suggest the following six principles:

- Nothing lasts forever (therefore set a termination date).
- Business commitments are for the 'in place' period, not the fiscal year.
- Support is an obligation, not a right.
- Transition is a process, not an event.
- Projects and endeavours *will have limits and will be* terminated if they are not managed.
- Prove the value of owning resources to keep them.

And the 'bottom line', according to Gartner analysts, is that extensive outsourcing and its counterpart, creating IT service businesses, lie ahead.

Responsibility for getting results from IT, paying for the long-term costs of IT decisions and so on, is moving to the business as is control over the IT environment.

During the transition, consultancy practices will apply in a restructured development group. The role of the chief information officer (CIO) is changing from 'running IS' to 'building commonality' and strategic leadership.

To complete the scenario, Gartner consultants suggest the following career-related planning guidelines for IT managers and staff:

- Endeavours *will* outweigh projects for recognition of the value of your participation, except where the project creates a package that is licensed in the market.
- Business analysis, risk analysis and financial skills will be done in the business area itself; the 'consulting' model for development implies a separation of skills.
- Renumeration levels in the IT industry will not materially decline following the completion of the decade, therefore enterprises will employ more labour through contractors and consultants in general. Legacy maintenance will likely be outsourced due to cost pressures.
- Operations managers should develop financial management, contracting and outsourcer management capabilities, using small contracts for marginal platforms, bandwidth on demand in selected circumstances, and so on, to gain experience needed for the 'mostly outsourced' future. Staff should look for opportunities to support end-users and demonstrate value by doing so.
- And finally: learn one business-related and one management-related skill for each technical skill acquired when planning a personal career development plan for continued employability within your current enterprise.

FINANCIAL TIMES
COMPANIES & MARKETS
Wednesday November 5 1997
Week 45

INSIDE

Japan toughens up for Big Bang

Arranged marriages appear to be going out of favour in Japan - in business as well as in private life. Until recently, the obvious solution to the threatened failure of Sanyo Securities would have been for the finance ministry to match it with a more prosperous partner. But in the newly competitive financial climate ahead of Big Bang liberalisation, all the prospective spouses have responded with a polite but firm "no". Page 19

Hand takes the reins at Emap

Breathing new life into existing titles, and launching new ones, is a strategy which has served Emap, the media group, well in the UK. Now, with Kevin Hand (left) as the new chief executive, the group is likely to try the same formula in Germany and France. But will Emap buy its rival IPC, which was put on the market last week by Reed Elsevier with a price tag of up to £1bn ($1.66bn)? Page 21

Derivatives trades hit fresh highs
Volatility on world financial markets last month led to record trading volumes on the leading derivatives exchanges. Page 22

Safe Singapore back in favour
Singapore's reputation for staid conventionality has sometimes alienated south-east Asian investors. Now, however, as financial turmoil grips the region, prudence is once again a virtue. Page 34

Companies in this issue

Market Statistics http://www.FT.com

CROSSWORD, Page 24

Chief price changes yesterday

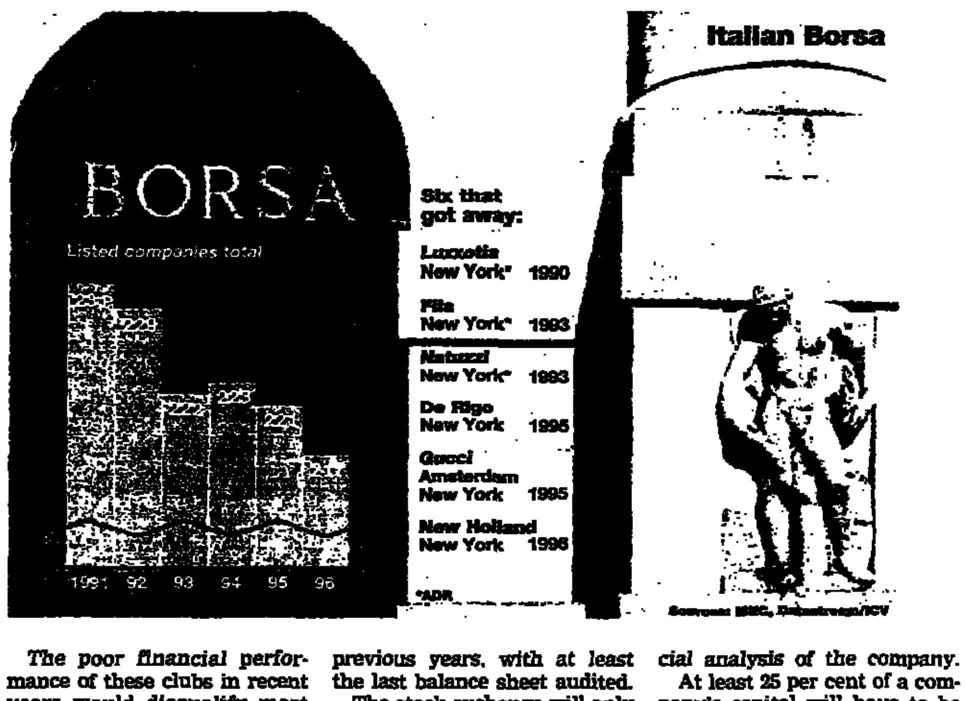
FRANKFURT (DM)			
Rises			
Data Modul	76.0	+	5.2
Krupp Hoesch	374.0	+	23.8
Vossloh	96.5	+	5.0
Falls			
Marseille Klinik	25.0	–	3.5
Metro AV Pf	59.0	–	3.7
Hochtief	69	–	4
NEW YORK ($)			
Rises			
AMF Bowling	21⅝	+	2¼
Borden	29	+	3
Bouygues Off	28¼	+	2⅜
Safety Kleen	25¾	+	3⅜
Falls			
Jlin Chem	17⅛	–	2
Newbridge Ntwk	49⅜	–	8⅜
LONDON (Pence)			
Rises			
Charles Stanley	171½	+	29
Liberty	425	+	47½
Wellman	37	+	5¾
Falls			
Betterware	68	–	11
Innovative Tech	115	–	19
Sanderson Elec	81½	–	14
TORONTO (C$)			
Rises			
Contrans A	18.5	+	1.5
Newcourt Cred	53.95	+	4.20
Precision Drill	48.0	+	3.4
Falls			
Dorelk B	7.5	–	1.5
Newbridge Ntwk	69.8	–	12.2
West Fraser	38	–	3

PARIS (FFr)			
Rises			
Eaux Mnls Vtch	3114	+	414
Labs Dolisos	179	+	29
Union Crd Batl	17.1	+	3.9
Falls			
Apache	2180	–	240
Immeub Plain	189.1	–	30.9
Ofrenro Chrstl	1202	–	248
TOKYO (Yen)			
Rises			
Aubex	230	+	40
Hino Auto	219	+	24
Nippon Dry Chm	370	+	40
Falls			
Misuzi	1660	–	300
Natl Securities	110	–	15
Toyo Eng	257	–	46
HONG KONG (HK$)			
Falls			
Cheung Kong	54.00	–	3.75
Citic Pacific	34.5	–	4.3
Henderson Land	41.2	–	3.3
HK & S Hotels	6.35	–	1.05
New World Dev	27.75	–	2.20
Shanghai Ind	33.0	–	3.8
BANGKOK (Baht)			
Rises			
Siam Coml Bk	94.5	+	7.5
Thai P&C	88.5	+	8.0
Thai President	178	+	16
Falls			
Charoong Thai	31.5	–	3.5
Hemaraj L&D	49.5	–	5.5
Sino-Thai Eng	29.75	–	3.25

New York and Toronto prices at 12:30.

Bourse attempts to stem flow of companies listing overseas

Italian stock exchange set to relax rules



By Paul Betts in Milan

Italy's newly privatised stock exchange yesterday moved to simplify regulations and reduce the cost of trading in a bid to halt the drift of medium-sized companies to New York and other overseas markets.

Draft proposals to be approved by a shareholders' meeting of the bourse on November 19 will scrap the rule whereby companies must show three years of consecutive profits before they can apply for a listing in Milan.

This regulation was one of the reasons why Gucci, the Florentine fashion house, decided to list on the New York and Amsterdam stock exchanges three years ago after it was refused a Milan listing.

Gucci has never looked back. Several other Italian companies such as Luxottica, the world's leading producer of spectacle frames, Fila, the sportwear maker, and Natuzzi, a sofa manufacturer, followed Gucci's example and set off for Wall Street, bypassing Milan.

In recent months, the Italian stock market has become anxious that other fashion houses such as Armani, Versace and Ferre – all considering stock market listings – would opt for foreign listings. It also fears that the so-called "Gucci factor" risks spilling over to another potentially lucrative new sector, with most of the country's Serie A (first division) football clubs now considering stock market listings.

Clubs such as AC Milan, Juventus, Inter Milan, Bologna, Lazio, Vicenza have already said they were interested in going to the stock market. Many are attracted to London, which has taken a lead in football stocks.

The poor financial performance of these clubs in recent years would disqualify most from a Milan listing under the existing stock market rules.

Under the new proposals, a company will no longer have to show it has been operating profitably in the previous three consecutive years. Instead, it will only have to show its activities can generate profits. It will also have to present to the stock market its balance sheets for the three previous years, with at least the last balance sheet audited.

The stock exchange will only consider companies whose initial capitalisation would total L10bn ($5.9m). Companies coming to the market for the first time will also have to be sponsored by a bank, an investment firm or another authorised broker. Sponsors will have to guarantee the financial forecasts and figures of the company. They will also have to publish twice a year a financial analysis of the company.

At least 25 per cent of a company's capital will have to be floated on the principal Milan market. In the case of the unlisted securities market, the minimum capital has been raised to 20 per cent from 10 per cent.

Stefano Preda, chairman of the new private stock exchange company, said the bourse aimed to attract about 100 new companies to the market over the next three years.

Mexican banks start consolidation process

By Leslie Crawford in Mexico City

Banamex, Mexico's largest bank, is in exploratory merger talks with Banco del Atlántico, the country's eighth ranked bank in terms of assets.

This begins the process of consolidation in Mexico's troubled banking industry.

In separate negotiations, Banacci, the financial group which owns Banamex, is discussing the sale of a minority stake in its brokerage house, Accival, to Goldman Sachs of New York.

"The consolidation process in Mexico is inevitable and will be faster and more dramatic than most participants currently realise," says José García-Cantera, an analyst with Salomon Brothers in New York.

He believes mergers will be driven by the banks' need to cut excess capacity. The industry is still struggling to recover from Mexico's financial crisis of 1995, which led to the near collapse of the banking system.

Only a government bailout – the cost of which is still rising – prevented a financial meltdown. Several banks have been sold, while other institutions have sought foreign partners to recapitalise their operations.

The government has taken some $45bn (£27.1bn) of bad loans – or nearly half outstanding loans in the banking system – on to its books. But banks are still burdened with a high level of non-performing assets, which account for about 18 per cent of the total extended credit. This has put a break on new lending and added to the problems of overcapacity.

Banco del Atlántico is one of four small banks ripe for a takeover. It has 203 branches and a 4.2 per cent share of the loan market, and is considered too small to survive in the more competitive environment caused by the entry of foreign banks since 1995. A number of small Mexican banks – including Promex, Bancrecer and Bancen – are facing problems.

Banamex said the purchase of a small bank such as Banco del Atlántico could be an inexpensive way of acquiring branches in the face of the expansion plans of its rivals. It stressed talks were still at the exploratory stage.

Exchange threatens penalties over Trustor funds

By Tim Burt and Greg McIvor in Stockholm and Clay Harris in London

Trustor, the Swedish investment company under investigation over the alleged disappearance of SKr620m ($83m), was yesterday warned it could be heavily fined or delisted if it failed to clarify its financial situation.

The Stockholm stock exchange has told the company – controlled by Lord Moyne of the Guinness brewing dynasty – it could be penalised if it does not disclose the whereabouts of its assets by the end of the week.

A senior Swedish police officer has gone to London to liaise with Britain's Serious Fraud Office over possible criminal proceedings involving the misuse of Trustor funds. Jochum Södeström, the officer in charge of the case at Sweden's National Criminal Intelligence Service, said: "The total information we have been getting strengthens the suspicion that a crime has been committed."

Lord Moyne was said yesterday by his UK publisher to be "abroad" and unable to be contacted. His corporate memoir, Requiem for a Family Business, is due to be published next week.

The case centres on the transfer of SKr620m from Trustor accounts in Sweden to one of the company's accounts in London. According to Swedish investigators, that account has subsequently been found to contain less than SKr200,000.

If the funds have been transferred beyond the control of Trustor, it could contravene Swedish law protecting the rights of minority shareholders.

The investigation was stepped up after preliminary inquiries by the Swedish state prosecution service prompted the suspension of Trustor shares at the end of last week.

Björn Björnsson, non-executive director and representative of minority shareholders, said a board meeting was likely this week and that he had been assured information would be provided to the stock market.

The Stockholm stock exchange said Trustor had failed to respond to requests for information about its finances. Hans Edenhammer, head of market surveillance, said: "We will have to consider what action to take by the end of the week."

Barry Riley

Stock markets do have a downside, after all

Victor Niederhoffer's friend was brutally frank. "It's only a matter of time until you go under," he said, after reading a draft of the ace trader's book The Education of a Speculator, published earlier this year.

Unfortunately, the unnamed friend turned out to be only too right: Niederhoffer's $110m hedge fund was wiped out last week, evidently positioned the wrong way in S&P Index contracts. Until the end of September, hedge funds in general had been performing exceptionally well, with global equity funds returning an average 31 per cent in nine months, according to Evaluation Associates. But we have now been reminded of the true risks in the markets.

It might have been a lot worse. Some massive official support exercises have been mounted – potentially more than $30bn for Indonesia, for instance. Foreign central banks have withdrawn some $15bn in US Treasuries from US Federal Reserve custody in the last two weeks, presumably to help finance currency support measures. Nevertheless, Treasury bond yields have, if anything, gone down.

The popular explanation of last week's gyrations on Wall Street and in Europe seems to be that bearish professional investment managers have attempted to switch into "safe haven" bonds and cash, but their attack on the stock market has been largely neutralised by plucky small investors who have piled in at lower prices. Oddly, though, those small punters complained of inability to trade because their brokers' phones were blocked.

In terms of fundamentals the main challenge to the stock market has come from the evident overoptimism on corporate earnings growth. Bottom-up I/B/E/S growth expectations run at 14 per cent a year both in the US and continental Europe.

Whether investors have really believed such rosy consensus projections in full is a moot point. But, from whatever base assumption, the economic meltdown in the Far East has required a significant downgrading. According to Merrill Lynch, US insiders are keener sellers than at any time since 1992, indicating company directors know earnings shocks are coming.

> 'The markets usually find a way to take down traders at the height of their hubris'

But, "new paradigm" investors tend to ignore the conventional value measures. They point to fast-dwindling government bond issuance in both the US and Europe while governments prepare to offload more social security obligations on to privately funded schemes. Meanwhile, the overriding corporate trend is for incentivised managements to economise on equity and, if anything, buy it back. So equities, say the bulls, will be squeezed much higher.

However, if you feed the Far East into this picture, modifications are required because rapid capacity expansion continues there in basic manufactured goods – from cars to computer chips – seemingly regardless of profitability. So the more commoditised sectors of manufacturing must, around the globe, miss out on any party. All the same, this leaves plenty of relatively protected sectors for the long-term bulls to favour.

But remember that in Japan in 1989, stocks could also only go higher and higher. Now we wait for the consensus US earnings forecasts to catch up with reality. We also wait for investors to apply higher risk premiums to equity investments after a period in which, on some calculations, the premium had shrunk to little more than 2 per cent.

Already emerging markets have suffered one of their familiar shakeouts. In bonds, the spread on J.P. Morgan's EMBI+ Index against US Treasuries has shot up within a week from 340 to 800 basis points. These shifts are painful if you are exposed – maybe lethal if you are leveraged.

"A string of good trades can sometimes lead to inattention to detail and subsequent losses," wrote Niederhoffer in his 400-page magnum opus. "The markets usually find a way to take down traders at the height of their hubris." That looks like sound advice.

Barclays in partial sale of BZW equities arm

By Jane Martinson and Clay Harris in London

Barclays, the UK bank, has failed to find a buyer willing to take over the entire equities and corporate advisory businesses of the BZW investment banking arm it put up for sale a month ago.

Credit Suisse First Boston, the Swiss-US investment bank, has reached a preliminary agreement with Barclays to buy just the UK and continental European equities businesses.

This leaves the group's equity derivatives division and its businesses in Australia and Hong Kong – which represent about half of the total being sold in terms of revenues and staff – still up for sale.

CSFB decided against making an offer for the equity derivatives business and its Asia-Pacific operation partly because they overlapped with its own operations.

The whole of the business put up for sale accounted for £200m of the £692m of BZW's revenues in the first half of this year. Although Barclays said the business for sale was profitable, little is known about the capital and costs allocated to it. Analysts had expected it would fetch between £400m and £500m when the sale was announced.

The exclusivity agreement allows CSFB less than a week to agree final terms. The bank is to confirm lock-in agreements with key members of BZW staff during this period. It can still walk away from any deal, leaving Barclays to face an more uncertainty.

The outline deal is likely to be regarded as a failure on the part of Barclays, which had suggested to other buyers that it wanted to sell the businesses as a unit. Some 30 banks were understood to have expressed an interest in buying parts of BZW last month.

CSFB is believed to have found no resistance when it put its partial offer to Barclays early this week. By that time, CSFB was the only runner.

But Martin Taylor, Barclays' chief executive, said last night that he was "happy with the way things have worked out" and defended the sales process, which has been criticised by other investment bankers.

The sale was handled by Goldman Sachs, the US investment bank.

Lex, Page 14

Aetna profits slide after $103m charge

By John Authers in New York

Aetna, the US life and health insurer, yesterday announced operating profits of $59.1m for the third quarter, down sharply from $136.9m in the same period last year, after a $103m charge to cover increased reserves in its health management business.

The charge was in line with a profits warning the company announced at the end of September, initiating sharp falls in share prices for several health management organisations.

It said it was still having problems integrating US Healthcare, the largest HMO in the US, which it bought last year for $8.9bn.

However, earnings per share, at 98 cents a share before the charge, were below the $1.02 which had been predicted by a consensus of analysts polled by First Call, and the company's shares fell in morning trading.

By midday, the company's shares had slipped $7/16 to $72¼.

Richard Huber, chief executive, admitted he was disappointed by the higher medical costs which had lowered Aetna's health insurance earnings. But he added that health integration was continuing and that all HMO systems conversions in markets which did not overlap had been completed.

Cathy Seifert, equity analyst at Standard & Poor's, the rating agency, said the charge reflected a combination of factors. She said: "There are macroeconomic trends in the healthcare sector, where you've got slowing revenue growth while healthcare costs are rising. A separate trend is the problem integrating US Healthcare."

She added that the dip in the company's stock suggested that Wall Street had "not totally digested" the information which Aetna had released in September. It also reflected a steady expansion in Aetna's price-earnings ratio after the acquisition, as investors reacted positively to the prospects for the healthcare sector.

The company's other businesses, offering retirement saving and fund management products in the US and a range of international markets, fared better. Aetna Retirement Services saw its assets grow 33 per cent over the year.

Mr Huber added that international growth was going well. Operating earnings for Aetna International increased 25 per cent over the year to $34m, in spite of start-up investments in Argentina, Indonesia and the Philippines.

Since the end of the third quarter, Aetna has announced a deal to sell life insurance in China, only the second US company to be licensed to do so. Mr Huber said last month that healthcare would provide the bulk of Aetna's growth for the next five years.

Dr Pepper to shed 110 jobs

By Richard Waters in New York

Dr Pepper/7 Up, the US soft drink company owned by Cadbury Schweppes of the UK, yesterday announced plans to cut 110 jobs, or around one in 10 of its workers.

The news came after a year in which the company's soft drinks sales in the US have fallen behind the growth rate set by its two larger rivals, Coca-Cola and PepsiCo. However, DPSU called the move "voluntary" and denied it had been prompted either by competitive pressures or by an order from its British parent.

While Dr Pepper, the company's flagship brand, has been growing faster than the 3-4 per cent rate of the US soft drinks market as a whole, its other brands have lagged. A spokesman attributed the decline in volume sales of brands such as 7 Up and Crush to a move by some bottlers who are affiliated with the company's bigger rivals to drop its brands from their distribution channels in favour of others sold by Coca Cola or PepsiCo.

In spite of the job cuts, DPSU said it was not reducing its marketing efforts. Also yesterday, the company named John Clarke as its first chief advertising officer, responsible for all its brand advertising and media activities, and said he would join its management board.

The job reductions resulted from the first thorough review into the company's operations that had been conducted for some years, and involved mainly administrative positions, a spokesman said. This was due in part to the planned installation of SAP's company-wide software package, which was expected to streamline the company's activities.

Most of the jobs will go from DPSU's headquarters in Dallas, with the reductions due to be completed by the end of next year.

While saying that it had not been required by Cadbury Schweppes to take the action, DPSU said the review that led to the cuts had begun earlier this year as part of the UK company's "managing for value" programme.

Fizzy or flat: Mixed results from Dr Pepper/7 Up's brands

Waste Management bolsters board

By Nikki Tait

Waste Management, the Chicago-based garbage disposal group whose share price was rocked last week when its newly-appointed chief executive unexpectedly quit, yesterday attempted to ameliorate investors' concerns by bolstering its board and "reshaping" its audit and executive committees.

Two new independent directors were named – Roderick Hills, a former chairman of the Securities and Exchange Commission, and John Pope, a former president and chief operating officer of United Airlines.

The reorganisation of the internal audit, nominating and executive committees will see Dean Buntrock, one of the company's founders and the focus of some investor disquiet, end any active role on board committees.

Steve Miller, who stepped in as acting chief executive after Ronald LeMay's sudden departure, reaffirmed the company would take a "more conservative" accounting approach which could result in lower future reported earnings.

He added he was still unaware of any review which would lead to a restatement of previous year earnings, but admitted that this remained a possibility.

Waste shares gained $9/16 to $24 7/16 on the news, having slumped from around $29 last week.

Infoseek deal boosts Borders

By Nikki Tait in Chicago

Shares in Borders, the second largest US book retailer and owner of the Waldenbooks chain, jumped 11 per cent yesterday, after the Michigan-based company announced a two-year agreement with Infoseek.

The deal will see Borders become the exclusive bookseller and provider of "book-related content" on Infoseek's search internet service.

Borders also said it expected to launch its "Borders.com" online bookshop in January next year. The arrangements with Infoseek, which is based in California, are due to start operating at this time. Borders' internet initiative will be further bolstered through agreements with the likes of Salon, the online literary magazine, and Harvest, the out-of-print book-search company.

Borders' impending internet launch is the latest in a series of efforts by the big booksellers to muscle into the fertile online book-retailing sector. The idea of selling books over the world-wide web was largely pioneered by Amazon.com, which took its shares public earlier this year. Since then, however, Barnes & Noble, the leading US bookseller, also opened its own online, order-taking web site.

The aim of the deal with Infoseek, one of the main search engines for the world-wide web, is to push customers in Borders direction. An individual sending a search request for information on retirement plans via Infoseek, for example, will automatically receive information on books that relate to the same subject.

Under the agreement between the two companies, Infoseek will receive an undisclosed percentage of all book sales, and the two companies will flag each other's services on their respective sites. There is also a reciprocal promotion agreement.

Borders said that, given the internet possibilities and "other strategic spending", it remained confident it could grow earnings per share by a 25 per cent annual rate from 1997.

It added it expected to report break-even results for the third quarter of 1997, slightly better than analysts' forecasts, which averaged a loss of 0.03 cents a share, according to First Call. It would also endorse an increase in the full-year earnings estimates for the current consensus of 94 cents to 97 cents, in the light of the slightly better third quarter. The third-quarter earnings announcement will be made on November 17.

But Wall Street wasted little time digesting the news: Borders shares were marked $2¾ higher by lunchtime, at $28¾

AMERICAS NEWS DIGEST

The Equitable advances 73%

Equitable Companies, the US financial services group which stretches from insurance through fund management to Donaldson, Lufkin & Jenrette, yesterday announced a 73 per cent increase in after-tax operating earnings to $188.4m for the third quarter. Its businesses continued to benefit from the strong stock markets during the period. Shares rose $1[illegible] to $43[illegible].

DLJ's earnings more than doubled, up 114 per cent at $120.3m. The exceptionally favourable conditions for Wall Street during the period, including significant fee income growth from mergers and acquisitions, drove the increase.

Earnings for The Equitable's insurance operations, which concentrate on retirement savings products such as annuities, rose 42 per cent to $102.8m. Earnings were improved by strong investment performance, while total premiums, helped by demographic factors, rose 27 per cent.

Operating earnings at Alliance Capital, which operates both mutual funds and institutional pension funds and has started a campaign to expand into Latin America, rose 35 per cent to $86.2m, buoyed by both the strong equity markets, and high net in-flows of cash, which were in line with the trend for the industry. Total assets under management rose 25 per cent to $43.6bn over the 12 months.

John Authers, New York

■ COMPUTING

Apple, CompUSA in retail link

Apple Computer said it and CompUSA were joining forces to launch a new "store within a store" retail format for selling Apple products and technology within CompUSA Computer Superstores across the US.

CompUSA said its Computer Superstores would be dedicating significant retail space to Apple computers, software, peripherals and supplies as well as staffing the areas with Apple-trained employees.

CompUSA said it would fit out all its Computer Superstores with dedicated "store within store" environments. It said it expected to fit out more than 40 locations in key markets before the peak holiday selling season and planned to introduce the new environment in its Superstores nationwide within the next three to five months.

AP-DJ, Cupertino, California

■ BANKING

Appointments at BT Alex. Brown

Bankers Trust has created an additional layer of management at BT Alex. Brown, the unit created on September 1 as a result of the merger of Bankers Trust and Alex. Brown.

Ted Virtue, executive vice-president and head of global finance at Bankers Trust, has been appointed to the additional post of president of BT Alex. Brown. He will report directly to Yves de Balmann and Mayo Shattuck, vice-chairmen of Bankers Trust and co-chairmen and co-chief executive officers of BT Alex. Brown. Mr de Balmann came from the BT side and Mr Shattuck from Alex. Brown. The move is likely to be seen as Bankers Trust exerting its authority over its acquisition.

Tracy Corrigan, New York

Comments and press releases about international companies coverage can be sent by e-mail to international.companies@ft.com

COMPANIES AND FINANCE: INTERNATIONAL

Steel groups give in to lure of wedlock

Thyssen and Krupp Hoesch put the synergies from their merger at a minimum of DM450m a year

Talks round a table have succeeded where a hostile takeover bid failed. Yesterday's news that the supervisory and managing boards of Thyssen and Krupp Hoesch reached a basic agreement to merge the two Ruhr-based steel and engineering groups was surprising only in its speed.

Despite upsets, it has been increasingly likely that the two would agree a marriage. The potential benefits uncovered in March when Gerhard Cromme, Krupp chief executive, was caught planning a debt-financed bid for his larger rival Thyssen, have proved more persuasive than the attractions of independence.

The decision to merge Thyssen and Krupp would probably never have come without Mr Cromme's aborted bid, planned with the help of the Frankfurt branch of Goldman Sachs, the US investment bank.

But yesterday's statement from Thyssen and Krupp reeked of an earlier age of German corporate governance. The roll-call of those deciding the future of the two companies was a "Who's Who" of the Ruhr region.

The meeting was convened by Bertold Beitz, the 84-year-old former Krupp chief executive who now presides over the Krupp foundation, Krupp's biggest shareholder, and Günter Vogelsang, 77, another former Krupp chief and heavy industry troubleshooter who is now honorary chairman of the Thyssen supervisory board.

Yesterday's statement put the likely synergies from a merger at a minimum of DM450m ($259m) a year. To this has to be added the DM550m of financial benefits accruing annually from the merger of the two groups' flat steel interests into Thyssen Krupp Stahl. The company, in which Thyssen has 60 per cent and Krupp a 40 per cent stake, began operating in September.

The statement gave no indication of the final shape of the merged company. But it is thought the two sides have been discussing the exchange of their existing shares for equity in a new company rather than a structure based on holding companies. This would leave the Krupp foundation, currently owner of 51 per cent of Krupp, as the largest shareholder in the new concern.

Other big shareholders would include the Iranian state, which holds 22.5 per cent of Krupp, and Westdeutsche Landesbank Girozentrale, which has 9.55 per cent of the Essen-based group.

Because Krupp is smaller than Thyssen, the Krupp foundation's stake would almost certainly be less than 20 per cent of the merged company. Thyssen, with about 140,000 shareholders, has a far more diversified ownership structure, although Commerzbank and the Allianz insurance group hold 11.5 per cent through a joint holding company.

What Paul Achleitner, a partner of Goldman Sachs in Frankfurt, yesterday termed the "strategic logic" led to the decision to merge. Both Thyssen and Krupp have been pursuing similar strategies of concentrating on core businesses and striving for a clearly defined return on capital to increase the shareholder value of the respective groups.

Mr Cromme has transformed Krupp since taking over as chief executive in the late 1980s.

A significant breakthrough came in 1992 with the successful hostile takeover of the Hoesch steel and engineering group. Since then Mr Cromme has pared the number of companies in the Krupp group from 180 to about 75 and increased production abroad from about 10 per cent to more than 40 per cent.

Dieter Vogel, Thyssen chief executive since March 1996, adopted a similar strategy, and this year identified activities with annual sales of around DM5bn to be divested. A notable recent disposal was the 30 per cent stake in E-Plus, the third largest German mobile-phone network.

Both men have clearly defined goals for return on capital employed.

Mr Vogel is seeking 12.5 per cent for the Thyssen group. According to analysts, he fell below this target in the business year to end-September 1996, when the group achieved just under 10 per cent. Mr Cromme's target is a return of 15 per cent. According to Deutsche Morgan Grenfell, the return recently has been about 10 per cent.

Both Thyssen and Krupp are important producers of vehicle components and could become a powerful force in this sector. The two groups' trading divisions could also yield economies of scale and synergies.

Yesterday's statement said the effects on employment would be slight and spread out throughout the world. This suggests the two companies expect their merger to be a prelude to new expansion, probably in relatively undeveloped markets such as south-east Asia and South America.

The meeting also left one important personnel decision for later this month. The supervisory boards of Krupp and Thyssen have yet to decide whether it will be Mr Cromme or Mr Vogel who will head Germany's largest engineering group by far.

Peter Norman

Hands across the Ruhr

KRUPP — THYSSEN

Hoesch-Krupp	Sales (DMbn) 1996	1995
Industries		
Mechanical engineering	2.8	2.9
Fabricating	3.0	3.0
Plant construction	2.5	1.9
Automotive	3.0	2.9
Steel		
Stainless steel flat/Nirosta	5.1	3.8
Quality steel and profiles	5.2	[illegible]
Trading	5.6	[illegible]
Other member companies	0.9	[illegible]
Intra-group sales	-3.9	-4.1
Total	24.0	[illegible]
Year to end Dec		
Pre-tax profit (DMm)	336	[illegible]

Europe's top steel makers: 1996 output	Tonnes m
British Steel (UK)	16.12
Arbed/Aceralia (Lux/Spain)	15.30*
Usinor Sacilor (France)	14.96
Krupp/Thyssen (Germany)	14.22
[illegible]	13.10*
Cockerill Sambre* (Belgium)	6.40
Hoogovens (Netherlands)	6.15
Huta Katowice (Poland)	4.36

Thyssen	Sales (DMbn) 1996	1995
Capital goods and manufactured products	12.7	12.3
Trading and services	18.2	19.3
Steel	10.6	11.9
Property	0.4	0.3
Intra-group sales	-3.3	-3.7
Total	38.6	[illegible]
Year to end Sep		
Pre-tax profit (DMm)	654	1,026

Source: companies

Alumax pinpoints savings worth $90m

By Nikki Tait in Chicago

Alumax, the third largest of the US aluminium producers, said yesterday it had identified cost-savings and productivity measures which could add close to $90m to annual profits.

It said that around $69m would come from internal cost efficiencies, and a further $18m from productivity gains and reduction in the workforce.

The main loss of jobs has already occurred with the recent reorganisation of the company's semi-solid forging operations, where about 300 positions were shed.

A smaller number of jobs are being lost at Alumax's Texarkana rolling mill, which has been changing its product mix and producing for more specialised markets. Alumax employs around 14,000 people and the job reductions account for 2-3 per cent of the total workforce.

In addition, Alumax's future pre-tax results will not be weighed by this year's $13m one-off charge in respect of the forging operations reorganisation - leaving the company to calculate an overall $100m boost to future profits before tax, in comparison with 1997.

The company said that it expected about $20m of the profits improvement to fall in its primary aluminium operations; about $15m in its semi-fabricated businesses; and the bulk, or $52m, to show up in fabricated operations. It said that the overall additional benefit to earnings after tax, compared with 1997, should work out at around $1.05 a share. According to First Call, analysts are currently estimating earnings per share of $2.54 for 1997.

In the first nine months of 1997, Alumax reported a loss of $13.5m, after tax and charges on sales of $2.15bn. Excluding all special items and dividend income, Alumax's underlying profit for the period was $101.2m.

The company said it was looking at introducing a performance improvement plan, devised with Boston Consulting Group, encouraging divisions to meet balance sheet and profit targets, rather than just the latter.

Vereinsbank issue beats market expectations

By Andrew Fisher in Frankfurt

Bayerische Vereinsbank has raised more than expected from German and international investors through a capital increase totalling about DM3.5bn ($2bn) to push through the second stage of the merger to create Germany's second largest bank.

The bank said last night that the move had aroused considerable interest among domestic and foreign investors, in spite of the difficult situation on world capital markets.

"This is the first big, highly visible transaction done in Europe since all the market difficulties," said Andrew Wilson, co-head of equity capital markets in Europe for J. P. Morgan.

The US investment bank led the global offering, together with Vereinsbank and its merger partner, Bayerische Hypotheken- und Wechsel-Bank.

With the new shares priced at DM98 – compared with yesterday's close of DM100.6, down DM1.20 – the offer raised nearly DM1.7bn. The "greenshoe" option, to satisfy extra demand from investors, is likely to increase this to nearly DM2bn.

This is in addition to the rights issue, already completed, under which Vereinsbank raised DM1.6bn. These shares were priced at DM85.

The successful Vereinsbank issue, which follows a share exchange which left it with 45 per cent of Hypo-Bank's shares, was in contrast to the embarrassing decision by Volkswagen, the German motor company, to postpone its planned DM6bn-DM8bn capital increase in the face of market turmoil.

The new Bavarian bank, to be called Bayerische Hypo- und Vereinsbank, will be the largest mortgage lender in Europe and has ambitions to expand further in regional markets in retail, corporate and asset management business. But it does not intend to become a big investment bank.

Albrecht Schmidt, head of Vereinsbank, will become chairman of the merged bank's management board.

Putnam allies with Nippon Life in Japan

By Gwen Robinson and Gillian Tett in Tokyo

Putnam Investments, a leading US fund manager, is aiming to make Japan its largest overseas market for its operations outside the US.

Putnam is stepping up its plans to move into Japan's lucrative pension management market on the back of a recently concluded tie-up with Nippon Life, Japan's largest life insurer.

The strategic alliance, sealed in September in Tokyo, is the most comprehensive yet between a large foreign fund manager and Japanese life insurer.

How the two companies manage their partnership will be closely watched by foreign asset managers, as a test of whether such tie-ups can maximise opportunities in Japan's "Big Bang" reforms.

Foreign interest in the Japanese pension market has grown in step with the government's plans for deregulation.

Already, the relaxation of restrictions has encouraged Japanese companies and public pensions to use foreign groups for their portfolio investments – and has consequently left many groups scrambling to boost their presence.

Lawrence Lasser, chief executive of Putnam Investments, said that under the Nippon deal, Putnam will develop products for Japanese institutional pension clients and manage Y80bn ($662m) in assets globally for Nippon Life.

The products will be sold and promoted through Nippon Life, which has a sales force of 76,000, 17.5m policyholders and total assets of about Y39,000bn.

Initially, Putnam will focus on six pilot funds it has established in Japan in six different asset classes, and expects them to attract about $850m in assets by the year-end. Eventually, the group plans to offer about 12 pilot funds.

Putnam will train Nippon Life's employees in investment management, marketing and client service, and will share data and research with its Japanese partner.

Meanwhile, the relationship between the two groups was also boosted when Putnam recently took over an equal stake with Nippon Life in Panagora, a Boston-based asset management company.

This was previously held by Lehman Brothers and has about $15bn under management.

Mr Lasser said Putnam was just beginning its entry to the pension market and intended to pursue a gradual strategy of developing business. "We are not poised to compete in the growth-in-assets derby so popular among investment firms, we are interested in investment performance," he said, adding that he was unconcerned about competition from Japanese fund managers.

"There won't be serious competition unless they tie up with foreign firms," he said. "Japanese fund managers are smart, hard working and adaptable. But it's a new game here, it doesn't mean they can't learn, but they are certainly starting at a great disadvantage."

In the US, Putnam has gained a lead through the distinctive strategy of focusing on the management of so-called 401(k) defined-contribution pension funds for companies, managing about $30bn.

Its success has helped it to become the fifth largest mutual fund manager with total assets of $190bn. But in overseas markets, the company is known for a steady approach to business development.

Italy, where it manages mutual funds for Grupo Bipop, a medium-sized financial company, represents Putnam's most developed overseas market. In Japan, it opened a branch in 1981 whose operations were limited to selling investment trust products through brokers.

INTERNATIONAL NEWS DIGEST

Newcourt eyes AT&T Capital

Newcourt Credit, the acquisitive Canadian commercial and corporate finance group, is in talks to acquire AT&T Capital, the asset-backed lending organisation spun off from the US long-distance telecommunications company last year in a management buy-out valued at $2.2bn.

The deal would be the largest acquisition yet by Newcourt in a series of mergers which have seen it buy 18 companies in the last six years, a process which has made it the sixth largest commercial lender in North America. Its last significant acquisition was BTF from Lloyds TSB of the UK for about $500m.

Newcourt's strategy is to add businesses which allow it to service its clients, which include Dell Computer, on a global basis. Neither company was prepared to confirm when they expected the talks to be completed.

AT&T Capital, which is 98 per cent owned by Nomura International of London, also announced third-quarter results yesterday. These showed net profits of $13.2m for the quarter.

Total revenues were $404.5m, down 4.7 per cent compared with the equivalent period of 1996. The company attributed this to lower lease revenue, resulting from its $3.1bn asset securitisation last year, and from higher relative interest rates.

John Authers, New York

■ GERMANY

SGL sees double-digit growth

SGL Carbon, the German carbon and graphite producer, yesterday forecast double-digit profit growth for 1997 and 1998 in spite of an exceptional charge of about DM45m ($25.9m) this year.

"The order books support our confident outlook for the fourth quarter. Our optimistic forecast for the full year 1997 therefore remains intact despite considerably higher one-time rationalisation costs." Robert Koehler, management board chairman said.

Announcing nine-month results broadly in line with analysts' expectations, Mr Koehler said profit growth in 1998 would be "well into double figures", boosted by the company's restructuring and rationalisation programme.

Growth over the first nine months was driven by a recovering European steel industry – a key customer for SGL's products – as well as currency effects from a stronger dollar and several 1997 acquisitions. Pre-tax profit climbed 11 per cent to DM248m, exactly in line with forecasts by BHF Bank and slightly below the DM 254m predicted by WestLB Research. Sales climbed 17 per cent to DM1.502bn.

SGL's shares outperformed the market after the results, closing at DM241, a fall of DM1.2. "The results were fairly solid, as expected, and the outlook was reasonably bullish," one dealer said. "The shares were strong immediately after the results came out but they have come off now with the market."

SGL said the expected exceptional charge was composed of a DM10m charge for a product recall in the US and about DM35m in restructuring costs for its European operations. About DM30m was included in the nine-month figures, leaving charges of DM15m to be included in the fourth-quarter results.

Reuters, Frankfurt

■ GLASS

Saint-Gobain to build UK plant

French glassmaker Saint-Gobain said yesterday it would build a flat glass production line in Britain, representing investment of FFr600m ($103m). The plant will have annual capacity of 170,000 tonnes and is expected to start output by the end of 1999 at the latest, a spokeswoman said.

Up to now, Saint-Gobain has sourced its annual sales in Britain of 17m square metres of flat glass from plants in France, Belgium and Germany. The British plant is aimed at "optimising our logistics," the spokeswoman said. She declined to say where the plant would be located.

Reuters, Paris

■ CHINA

Everbright in joint venture talks

China Everbright Technology, one of the Hong Kong-listed arms of the acquisitive China Everbright Holdings, is understood to be negotiating a China joint venture. The venture, involving mainland independent parties, will provide data communications and is expected to target eastern Chinese provinces. The talks come ahead of the company's impending entry into Hong Kong's red-chip index, which tracks mainland-backed companies.

Louise Lucas, Hong Kong

■ PORTUGAL

BPI up 43% in third quarter

Banco Português de Investimento, Portugal's fifth largest financial group, lifted third-quarter net income 43 per cent to Es17.3bn ($98.3m), up from Es12.1bn in the same period last year. The results are not directly comparable because of BPI's Es136bn acquisition of Banco de Fomento e Exterior in September last year.

BFE began to be consolidated in the group's accounts in the last quarter of 1996. BPI's total assets rose from Es2,889bn in December 1996 to Es3,012bn in September

Peter Wise, Lisbon

Comments and press releases about international companies coverage can be sent by e-mail to international.companies@ft.com

COMPANIES AND FINANCE: EUROPE

KLM forecasts record year after interim surge

By Gordon Cramb in Amsterdam

KLM "is poised to surpass its previous best performances" in its current year, the Dutch flag carrier said yesterday, releasing first-half net profits more than doubled to Fl 1.07bn ($547m) from Fl 529m.

After resolving a dispute with Northwest Airlines of the US over issues of control in their eight-year-old tie-up, it hopes to reach accord with a European partner by the time its financial year ends in March.

Rob Abrahamsen, chief financial officer, said: "At the moment we are speaking only to Alitalia." Management of the state-controlled Italian airline, which has just emerged from a financial restructuring, is keen on an alliance with KLM but is under political pressure to consider Air France as an alternative. Swissair is also interested in a pact with Alitalia.

KLM has previously made clear that for its part, such a deal would not involve equity links. Those with Northwest are being unwound as a result of an agreement this summer under which their transatlantic operating partnership is being broadened.

Interim net earnings included a Fl 421m book profit on the sale of a first tranche of ordinary and preference shares in Northwest, *where the board had* put up a fight against KLM's plans to lift its holding above 20 per cent. In the 1996 first half, Fl 376m was booked following the sale and revaluation of preference shares.

For the second quarter alone, when the latest sale took place, net earnings totalled Fl 884m. The equivalent period of last year brought in Fl 258m, of which Fl 131m derived from the rearrangement of KLM's preferred stock holdings in Northwest.

Barring adverse changes in the world economic picture, exchange rates and fuel prices, Mr Abrahamsen said, "KLM will have the best year in its history". That would beat the Fl 547m net profits recorded two years before. Analysts were last night upgrading their 1997-98 forecasts after an interim result which exceeded their expectations.

While adding the full-year outlook assumed the group would escape any impact from recent upheavals in south-east Asian economies, Mr Abrahamsen went on: "We expect our traffic will not be affected, and we see no signs of it. The new KLM is anyway flexible enough to adjust its capacity."

A rationalisation programme – introduced last November and aimed at saving Fl 1.5bn over three years – contributed Fl 150m of the Fl 482m improvement in first-half operating income, which reached Fl 754m. Mr Abrahamsen described this as heartening and said a similar benefit would follow in the current six months.

Other factors aiding the improvement were a stronger dollar, volume growth in traffic and better demand for business class seats. Passenger load factor was 81.4 per cent, up from 76.8 per cent. Cargo showed an improvement in spite of reduced capacity as KLM focused on more profitable routes.

Japan Air System has just joined nearly 25 airlines with which KLM has co-operation deals.

Winning ways: Steffi Graf is the public face of Adidas — Clive Brunskill, Allsport

Strong US performance helps lift Adidas 64%

By Graham Bowley in Frankfurt

Adidas yesterday surprised investors with a stronger than expected increase in third-quarter pre-tax profits and revealed that two board members would be selling part of their stakes in the German sportswear group.

Adidas, which is taking over Salomon, the French sports goods company, said pre-tax profits rose 64.4 per cent to DM307m ($176.8m) in the period, underlining its growing success in the battle against US rivals Nike and Reebok in the world sportswear market.

*Adidas said Robert Louis-*Dreyfus, chairman, and Christian Tourres, a fellow director, would each sell 500,000 Adidas shares. They would continue to hold about 4.9 per cent each of Adidas share capital.

Valued at yesterday's closing share price, the combined stake to be sold is worth about *DM249m*, although analysts said the shares were likely to be sold *at a small discount. The sale* – co-ordinated by UBS – will not involve a book-building process and the two directors are not expected to sell more of their stakes.

The sale is to recoup personal debt inherited by the two directors in April when they bought shares from Sogedim, a Belgium-based investment company which had held a minority stake in Adidas. Sogedim became involved with Adidas in 1993 when it bought 95 per cent of the company from Bernhard Tapie, the French businessman and former politician. This stake was later reduced to 26 per cent when Adidas *went public.*

Adidas said sales rose 45.7 per cent to DM2.1bn in the third quarter, thanks to success in the key US market. North American sales rose 69 per cent to DM531m, while sales in Europe increased 34 per cent to DM1.37bn.

"This was all very positive," *said* one industry analyst at a bank in Frankfurt.

Mr Louis-Dreyfus, former *chief executive of Saatchi* and Saatchi, the UK advertising group, is credited with the impressive turnround after losses in 1993.

Since he took over, the company has adopted a more aggressive marketing strategy, revamped its product range and emphasised technological innovation.

It went public with a DM2.1bn share issue in 1995. Mr Louis-Dreyfus and Mr Tourres yesterday told an analyst meeting that they would remain with Adidas at least until 2000.

In September, Adidas announced it planned to take over Salomon – which *makes ski and golf equipment* – in a FFr8.05bn ($1.89bn) deal which would take Adidas ahead of Reebok to become the world's second biggest sports goods manufacturer after Nike.

Adidas shares closed at DM249, up 20 pfennigs.

Adidas said sales grew by more than 80 per cent in the UK and in Spain, while in the Asia-Pacific region sales increased 74 per cent.

Swedish mining group to expand

By Tim Burt in Stockholm

Trelleborg, the Swedish mining, metals and rubber group, yesterday announced plans to expand its industrial and distribution *operations* following the partial demerger of its Boliden mining and metals arm earlier this year.

The company said it was seeking acquisitions mainly in the emerging markets of south-east Asia, eastern Europe and Latin America.

Trelleborg's ability to make sizeable bolt-on acquisitions has been greatly enhanced by the SKr1.46bn ($193m) capital gain on the sale of 55 per cent of Boliden.

In the first nine months of this year, proceeds from the sale of Boliden shares helped to lift the group's liquid assets from SKr863m to SKr3.24bn.

Kjell Nilsson, chief executive, said he expected most of the acquisition to take place in the industrial division, which contributed operating profits of SKr334m in the nine months to September 30, against SKr227m a year earlier.

He emphasised, however, that the acquisition strategy did not signal any imminent plans by Trelleborg to dispose of its remaining Boliden shares.

Speaking after publication of the company's third-quarter profits, Mr Nilsson said the Boliden stake was *unlikely to be sold* within the next three years.

"We have a responsibility towards the management of Boliden to remain principal shareholder during the period of the company's expansion," he said.

Exceptional gains on the sale of Boliden shares pushed pre-tax profits up from SKr837m to SKr2.3bn in the first nine months of the year.

Underlying operating profits rose from SKr705m to SKr1.04bn as contributions from newly acquired subsidiaries lifted sales to SKr15.9bn from SKr15.3bn.

Earnings per share rose *from SKr5.05 to SKr*15.70 in the nine months to September 30.

Mr Nilsson predicted that pre-exceptional profits for the full year would reach SKr2.5bn-SKr2.6bn.

He warned, however, that Boliden had been adversely affected by price volatility in the third quarter.

Trelleborg's most commonly traded B shares rose SKr4 to SKr107.50.

VW poised to lift Spanish output

By Haig Simonian, Motor Industry Correspondent

Volkswagen, Europe's biggest carmaker, may be poised to authorise significant new spending to boost output at its plant at Pamplona, Spain, as part of its long-term plans to expand and simplify production capacity.

The company yesterday refused to comment on reports that it would invest about DM500m ($288m) on the Pamplona factory to raise output of the best-selling Polo hatchback.

However, VW's supervisory board holds its annual meeting next week to examine the group's medium-term spending plans. A central part of any decision to boost Polo output in Spain would be a new paint shop, which would probably not be ready until 2000.

Ferdinand Piëch, chairman, has been simplifying the range of platforms (basic engineering structures) on which the VW group's models are built in an aggressive drive to cut costs.

New VW group models, such as the Golf, the Audi A3 and the Skoda Octavia, share platforms in spite of differing external styling.

A second strand of Mr Piëch's "platform strategy" has been to reduce costs by concentrating production of models sharing the same platforms at a smaller number of plants.

The new Arosa, sold by VW's Spanish Seat subsidiary, is built at VW's main plant at Wolfsburg in Germany; next year's Seat Toledo, which is based on the platform of the new Golf, will be manufactured at a Belgian plant which also builds the Golf.

Concentrating production of the Polo, currently made at Wolfsburg and Pamplona, in the Spanish factory would release space at Wolfsburg and allow the German *factory* to concentrate on two models – the new Golf and the Arosa.

Output of both is expected to rise sharply as further variants come on stream. The Golf is expected to spawn a saloon version, called the Vento, an estate car and possibly a sporty coupé. Meanwhile, the Arosa is expected to be followed next year by a slightly altered VW-badged version.

The Pamplona plant builds about 1,000 Polos a day. Expansion would probably lift output to 1,800 units daily.

COMPANIES AND FINANCE: ASIA-PACIFIC

Japan government asks banks for extra funding for customers of failed broker

Aid increased for Sanyo clients

By Bethan Hutton in Tokyo

Japanese financial institutions yesterday rallied round with funds to compensate customers of Sanyo Securities, the failed broker, but there was no sign of an overall rescue bid for the company.

Sanyo filed for bankruptcy on Monday with debts of Y373.6bn ($3bn). Eight affiliated companies with liabilities of Y419.2bn also filed for protection.

The total value of assets held by Sanyo and its affiliates is not yet clear, but the finance ministry estimated the parent company's net liabilities at about Y70bn.

Hiroshi Mitsuzuka, finance minister, said yesterday that no public money would be used to bail out Sanyo. The use of public funds to bail out housing loan companies last year caused an outcry by taxpayers.

However, the ministry said it had asked banks and brokers for extra contributions to an industry-wide compensation fund covering client assets held by securities companies. The fund now has assets of only about Y35bn. Normally, the compensation limit for each company is set at Y2bn, but this will be increased to provide full cover for Sanyo customers.

Nomura Securities, Sanyo's main shareholder, has been asked for Y10bn, while the three other largest brokers have been asked for Y3.3bn each. Sanyo's three main banks, Bank of Tokyo-Mitsubishi, Daiwa Bank and Nippon Credit Bank, have been asked for about Y15bn in total. All the banks and brokers seem likely to accept the request.

Daiwa Bank said it would provide funds, but made clear it was not willing to take part in a full-scale bailout of the company. "We can only offer funds for the protection of investors," Takashi Kaiho, Daiwa Bank president, said yesterday.

Nippon Credit Bank, one of the main creditors, is itself in financial difficulties and being restructured. NCB said yesterday it had a total of Y42.6bn of loans outstanding to Sanyo Securities and affiliated companies, only Y4.1bn of which was to Sanyo itself.

But NCB said much of the debt was covered by collateral, and the company had already set aside reserves to cover much of the rest. "Additional losses would probably be very small or manageable amounts," NCB said.

The market turmoil which the government had apparently feared after Sanyo's collapse failed to materialise yesterday: traders were preoccupied with New York and Hong Kong, and the Nikkei ended the day higher.

However, share prices slumped for almost all listed securities companies, except for three of the big four. The yen also weakened, partly on concerns about financial sector weakness.

No last-ditch romance for ailing broker

Customers read poster at Sanyo's Tokyo branch explaining move to declare bankruptcy Reuters

Japanese marriage customs are changing. Arranged marriages appear to be going out of favour – in business as well as in private life.

Until recently, the obvious solution to the threatened failure of a company such as Sanyo Securities would have been for the finance ministry to act as go-between and match it with a suitable, more prosperous partner.

The system was theoretically voluntary, but in practice those whom the finance ministry wished to join together rarely dared to object. The stronger partners were motivated by the knowledge that if they ever encountered difficulties, the same "convoy" system would come to their rescue.

The ministry has in fact been up to its old matchmaking tricks in recent weeks, trying to find a suitor for the sinking broker. But in the newly competitive financial climate ahead of Big Bang liberalisation, all the prospective spouses have responded with a polite but firm "no".

The final straw for Sanyo was the refusal of nine insurance companies to roll over Y20bn ($166m) of subordinated loans, despite finance ministry pressure to do so. Other big institutions with links to Sanyo, such as Bank of Tokyo-Mitsubishi and Nomura Securities, also snubbed ministry attempts to arrange a rescue package or takeover.

So Sanyo has ended up in court filing for bankruptcy, rather than signing the registry book. Does this now signal the end for the convoy system, and the ministry's powerful role as matchmaker and enforcer?

There are certain special circumstances which meant that Sanyo was more likely to be left on the shelf than other troubled financial institutions. First, it did not have just one main bank, as is normal in Japan, but several. This meant the amount of responsibility each felt diminished accordingly.

Secondly, Sanyo's main ally was Nomura Securities, Japan's largest broker, which holds nearly 20 per cent of Sanyo's shares either directly or through a real estate affiliate. Nomura has already been called upon to bail out smaller brokers, but its current position means that it has little to gain and much to lose by taking on yet another debt-laden company.

There has been speculation that a foreign investment bank or broker might acquire Sanyo for its retail network or seat on the stock exchange.

However, as Paul Heaton, financial analyst at Deutsche Morgan Grenfell in Tokyo, points out, there are cheaper ways of acquiring a seat on the exchange (without taking on unknown quantities of bad debt), and the record of Sanyo's retail staff does not make them an attractive proposition. The best hope for Sanyo may be that an institution such as Bank of Tokyo-Mitsubishi could take it over and sell off its various parts.

The next worry is whether Sanyo's collapse is just the first of a wave of broker bankruptcies.

Sanyo was known to be in more immediate danger than any of the other second-tier brokers. Its capital adequacy ratio, which fell to 160 per cent earlier this year, clearly put it in the danger zone – analysts consider anything below 250 per cent to be unhealthy.

But there are at least six other medium-sized brokers below the line. Some of them, however, have stronger relationships with their key shareholders than Sanyo had with Nomura.

One basic assumption about the Japanese financial system – that someone will always come to the rescue – may no longer hold true. But a wider characteristic of Japanese business life – that long-term relationships are all-important – may still be sufficiently strong to save some of the other struggling brokers.

Some may thus manage to avoid Sanyo's fate, but it is becoming more certain that some will not. "Winners and losers are increasingly being decided," said Elizabeth Daniels, analyst at Morgan Stanley in Tokyo. For the moment, it seems Japan's financial institutions are readier to accept that than is the ministry of finance.

Bethan Hutton

Chinese power group eyes HK listing next year

By Louise Lucas in Hong Kong

China International Power Holdings, a unit of China's Ministry of Power, is seeking a listing in Hong Kong next year, according to bankers in the territory.

The company is in the early stages of restructuring, and bankers say its initial forecast of proceeds of $750m-$1bn are likely to be cut to about $600m-$800m. Mandates to lead-managers have yet to be awarded.

China International Power is the Hong Kong arm of mainland-based China Power Investment Corp, and the ministry's window company for raising funds overseas. As a Hong Kong company, it will not issue H-shares – the name given to the Hong Kong-traded stock of China state-owned enterprises – but will join the ranks of the "red chips", or mainland-backed companies.

Because of the work involved in the restructuring, the issue is unlikely to come to market before the second half of 1998, bankers say. There is also little incentive to speed up the listing process, given the cooler market sentiment.

The sharp drop on the Hong Kong stock market, prefaced by falling share prices among the China companies, has prompted would-be issuers, including Yanzhou Coal Mining and China National Aviation, to delay their listings.

However, other China power companies are understood to be advancing plans to secure Hong Kong listings. The sector was hit by a wave of negative sentiment in 1994, largely owing to concerns about foreign exchange guarantees and rates of return that foreigners regarded as too low.

One victim was Shandong International Power Development (SIPD), which scrapped its Y3bn ($362m) flotation three years ago but is now understood to be reviving its plans.

The listing, scheduled for Wall Street, was cancelled in the wake of poor performances by other China power companies – Shandong Huaneng Power Development and Huaneng Power International – that had listed there.

New Core files for protection

By John Burton in Seoul

New Core, South Korea's second-largest retail group, yesterday filed for bankruptcy protection for half of its 18 affiliates in the latest collapse among the nation's top 30 conglomerates.

It was unable to service debts of Won1,620bn ($1.67bn) amassed during a rapid expansion of its department and discount store network since 1994 in its bid to become the world's 20th largest retailer by 2000.

New Core said it would negotiate with creditors to reschedule debt payments as it seeks to raise Won735bn through property sales, including 19 of its 39 retail outlets. It will also slim down to six subsidiaries from 18. It estimated the reorganisation would cut annual costs by Won173.5bn. The company is aiming to regain profitability in six years. New Core reported net profits of Won19.9bn in 1996.

But creditors, led by Korea First Bank, have yet to decide whether to endorse New Core's court protection plan while allowing it to retain current management. Creditors may instead decide to sell New Core to another retail group.

NatWest to close HK arm

By Louise Lucas

NatWest Markets, part of the UK's National Westminster group, is to close down its global debt markets division in Hong Kong early next year and concentrate its debt functions in Singapore, Tokyo and London.

The move will result in about 55 redundancies. The remaining 50 employees within the division will be located outside Hong Kong.

The banking group said the restructuring was part of a strategy of focusing on areas where it had a competitive advantage, and of cutting costs and improving productivity.

It follows a period of upheaval for the group's Asian operations. A year ago National Westminster Bank bought out Wheelock, the Hong Kong conglomerate, from its Hong Kong investment-banking joint venture.

The joint venture was subsumed into the global equities division of NatWest Markets, the UK bank's investment banking arm.

As the realignment was announced, Wheelock NatWest lost two of its key personnel: David Miller, chief executive, and David Clapham, head of research. In August the company carried out a review of NatWest Markets.

There were also departures from the group's fund management arm after NatWest acquired Gartmore, the UK fund management company, last November.

Departures have continued at the investment bank. Last month saw the resignation of Trevor Bush, managing director (greater China) of NatWest Markets.

The latest restructuring affects the debt unit responsible for fixed-income sales and for trading, derivatives, structured finance and securitisation.

The bulk of this will now be managed from Tokyo, although syndication and project and structured financing for Asia will be managed in London, where it could be handled more cost-effectively.

The bank said Tokyo was the logical choice because it is one of NatWest Market's bigger offices in the region. "The global debt markets division had to look at its global function and ways to rationalise and get the best return on assets," she said.

NatWest Markets employs 560 staff in Asia, including 220 in the equities division. Of these 250 are based in Hong Kong.

Weak commodity prices hit Grasim

By Krishna Guha in Bombay

Weak commodity prices depressed profits at Grasim Industries, the conglomerate at the core of India's Aditya Birla group.

Pre-tax profits fell 17 per cent to Rs1.47bn ($40m) in the first half.

Grasim said the results reflected "a marked slowdown in the economy and continued slackness in the market for commodity products in general".

Sales rose 19 per cent to Rs17.66bn in the six months to September 30 as Grasim increased output of its commodity products.

However, operating profits rose only 2 per cent, held back by poor prices and higher costs. Grasim blamed the rising costs on "increases in the cost of government-controlled input".

Lower income from investments and higher depreciation charges pushed overall profits lower.

Grasim has also suffered from a string of problems with power and water supplies to its plants.

The company said it had increased production of viscose staple fibre by 19 per cent to 83,000 tonnes and output of caustic soda by 17 per cent to 62,000 tonnes. But problems with gas supply at its sponge iron plant curtailed output, which fell 9 per cent to 346,000 tonnes.

Grasim said the "expected take-off" in India's infrastructure and housing spending "should result in greater demand for cement and steel". Grasim is India's third-biggest cement producer.

However, it said its sponge iron business would re-double its "thrust on export markets" as domestic demand was still "sluggish".

The company said domestic demand for viscose fibre to blend with polyester would "continuously increase". It also intends to develop the market for higher price speciality fibres "globally".

Grasim, once a valued blue-chip stock, hopes moves towards value addition will help win back confidence of the stock market, where it has been out of favour for the past 18 months.

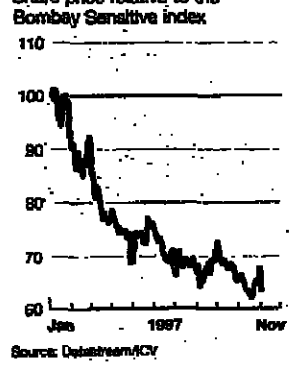
"The company has been jinxed," said one analyst. "It has had environmental protests in Kerala, water shortages in Madhya Pradesh, and flooding in another plant."

Analysts said the results should mark "the end of the bad news", but pointed out there were few synergies between Grasim cement and viscose fibre businesses.

Fundamental restructuring, which could be necessary to restore Grasim's fortunes, is unlikely because of complex cross-shareholdings within the Aditya Birla group.

Grasim Industries

Share price relative to the Bombay Sensitive index



Source: Datastream/ICV

Interim results at lower end of expectations, as strong pound and competition take their toll

M&S unveils three-year expansion plan

By Robert Wright

Marks and Spencer, the *clothing, food and houseware* retailer, yesterday announced details of a three-year £2.1bn ($3.48bn) expansion programme partly designed to increase sharply the share of its revenues generated from overseas stores.

The group, which is expanding in Asia, the US and continental Europe, said *it was taking advantage of* the strength of sterling to buy sites in Germany, where it opened its first store earlier this year.

Keith Oates, joint managing director, said that by early in the next century M&S wanted to raise the proportion of business done outside the UK from 17 per cent to as much as 25 per cent.

Overall, the group will increase its selling space in continental Europe by 1m sq ft – or 80 per cent. Nearly a third of the expansion will be in Germany.

Sir Richard Greenbury, chairman, said: "There are 20 to 25 sites in Germany alone we would like to have tomorrow. *My guess is it will* take us five years to get them."

Details of the expansion programme came as M&S announced interim pre-tax profits of £452.3m, at the lower end of expectations.

Profits in the 26 weeks to September 27 were particularly hit by the strong pound. International turnover rose 1.8 per cent to £601.8m, while operating profit fell 17.2 per cent to £22.2m.

The company said that profits were reduced £700,000 by currency translation effects and £6.5m by the cost to international subsidiaries of importing goods from the UK.

There were also problems for M&S's food retailing operations, where turnover rose only 2.3 per cent – an effect some analysts attributed to supermarkets' movement into the higher-margin food retailing areas where M&S has made many of its sales in the past.

The group's financial services *division* was also hit by increased competition, with turnover increasing 28.7 per cent to £127.8m (£99.3m), while operating profits rose only 13 per cent to £37.5m (£33.2m).

Robert Colvill, financial services director, said the reduction in margin was "probably quite a natural situation at this stage".

He *said*: "This is not the time markedly to increase our margins. It is the time to increase our market share."

Analysts yesterday shaved their full-year pre-tax profit forecasts for M&S by some £65m to about £1.16bn. Forecasts for the following year were also being shaved by about £60m to £1.25bn.

The bulk of spending on expansion, some £803m, is now likely to be required in this financial year. The dividend rose by more than earnings to 3.6p (3.3p).

Lex, Page 14

Big fund managers score badly

By Jane Martinson, Investment Correspondent

Two of the UK's largest pension fund managers – Gartmore and Mercury Asset Management – achieved returns well below the average in the year to date, according to latest performance figures.

One of MAM's mixed-with-property funds, which manages some £676m ($1.12bn) for a variety of clients, achieved the worst returns of all 71 in this sector as measured by Combined Actuarial Performance Services. The industry's largest pooled vehicle – MAM's £4.65bn fund – came 68th with a return of 14.5 per cent in the nine months to September 30.

The group reorganised its management of these funds over the summer.

Gartmore, which has suffered several high-profile client losses from its core funds in the past year, has underperformed for longer than MAM, which performed well over the past two years.

Gartmore's smaller medium-term balanced fund came 70th out of 71 in the year to date but bottom of the five-year performance records with a 14.1 per cent return.

These funds have suffered from stock selection decisions in the period according to industry consultants. Other large investment managers had performed better.

Fund managers have only slightly moved out of equities and into bonds in the third quarter, in spite of the government's July abolition of the dividend tax credit. The average fund manager held 18 per cent in bonds and cash by the end of September, compared with 16.7 per cent at the end of June.

On average, UK equity returns helped pooled pension funds achieve their best performance for almost four years in the last quarter as they fled from south-east Asia and Japan.

The average fund achieved a return of 8.1 per cent in the three months to September 30, their best performance since the last quarter of 1993.

This performance of managers holding assets of some £80bn benefited from a 13.1 per cent return from UK equities. The average fund increased its holding in UK shares from 56.1 per cent to 58.8 in the quarter. Managers bought more US shares, which returned 11.2 per cent. The average US equity weighting increased from 3.3 per cent to 4.3 per cent in the quarter. Holdings in Pacific Basin shares, excluding Japan, fell from 5.1 to 3.8 per cent.

RESULTS

		Turnover (£m)		Pre-tax profit (£m)		EPS (p)		Dividends: Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Betterware	28 wks to Sept 13	33.8	(32.1)	5.5	(6.65♥)	3.5	(4.2)	1.05	Jan 6	1	-	12.83
British Petroleum	9 mths to Sept 30	32,896	(31,688)	2,851	(2,930♠)	33.1	(37)	5.5	Feb 2	5	-	19.5
Celsis Intl	6 mths to Sept 30	7.02	(4.14)	0.847L	(2.7L)	0.95L†	(3.41L)	-	-	-	-	-
Charles Stanley	6 mths to Sept 30	10.6	(8.37)	1.69	(1.01)	11.04	(6.68)	1	Nov 28	0.825	-	3.825
Dairy Crest	6 mths to Sept 30★	392	(381.6)	18.7	(16.5♠)	11.8	(9.9)	-	-	-	-	-
Edge Properties	6 mths to Sept 30☆	19.4	(5.3)	3.17	(0.5)	6.4†	(3.1)	-	-	-	-	-
Marks and Spencer	6 mths to Sept 27	3,742	(3,534)	452.3	(430.1)	11.14	(10.46)	3.6	Jan 16	3.3	-	13
Northum Fine Foods	6 mths to Sept 30	17	(14.6)	0.509	(0.409)	0.83	(0.67)	0.1	Dec 12	0.05	-	0.15
Powerscreen Intl	6 mths to Sept 30	170.5	(151.8)	23.6	(20.4)	19.7	(17.3)	3.1	Feb 12	2.8	-	10.2
Revelation Picc Φ	6 mths to Aug 24*	4.19	(1.84)	0.156	(0.132L)	0.138†	(0.542L)	0.1	Dec 12	-	-	0.79
Select Appts	9 mths to Sept 30*	378.4	(263)	23.2	(14.2)	16.8†	(12.5)	-	-	-	-	3
Sims Food	6 mths to Sept 30	55.9	(75.8)	1.04♠	(0.71)	2.1	(1.7)	nil	-	nil	-	nil
Thames Water	6 mths to Sept 30*	698.1	(614.5)	202	(176♠)	44.7⧗	(41)	12.5	Feb 3	11.2	-	34.4
Westbury	6 mths to Aug 31	142.8	(131.5)	13.5	(9.71)	10.3	(7.4)	2.365	Jan 5	2.15	-	6.65
Willis Corroon	9 mths to Sept 30	516‡	(568.5‡)	68.1	(88.2♥)	9.5	(13.2)	1.65♦	Jan 2	1.65	-	6.6

Investment Trusts		NAV (p)		Attributable Earnings (£m)		EPS (p)		Current payment (p)	Date of payment	Corresponding dividend	Total for year	Total last year
Gartmore Venture	6 mths to Aug 31	100.7	(101.5)	0.424	(0.346)	2.16	(1.76)	1.8	Nov 28	1.5	-	3.2
Henderson Far East	Yr to Aug 31*	161	(180.4)	3.77	(3.23)	7	(6.6)	1.7	Jan 2	1.7	6.8	6.5
Renaissance US	6 mths to Sept 30	116.1	(94.7)	0.27	(0.161)	1.3	(0.77)	0.9	Nov 28	-	-	-
Secs Trust Scotland	6 mths to Sept 30	134.8	(105.89)	7.13	(6.52)	2.23	(2.03)	1.17	Dec 16	1.13	-	3.75

Earnings shown basic. Dividends shown net. Figures in brackets are for corresponding period. ♠After exceptional charge. ♥After exceptional credit. †On increased capital. ΦAim stock. ★Comparable period to July 31. ☆Comparatives pro forma. ⧗Excludes effect of windfall tax. ♦Fourth interim. *Comparatives restated. ‡Operating income.

Fate of RBB forces Redland boardroom exit

By Andrew Taylor, Construction Correspondent

Helga Bruhn-Braas, has resigned from the board of Redland, the UK building materials group which is fighting a £1.69bn ($2.8bn) takeover bid from Lafarge, its French rival.

Ms Bruhn-Braas represents a 31.5 per cent Braas family interest in RBB, the world's biggest roof tile company, of which Redland controls 56.1 per cent.

Redland last week signalled that all of its businesses were separately up for sale, including its RBB stake, in an attempt to gain more value for shareholders than Lafarge's 320p-a-share hostile offer.

Ms Bruhn-Braas has resigned to avoid a conflict of interest in negotiations between the Braas family and the Redland board over the future of the British group's majority stake in RBB. One option is for the family, which is being advised by Lehman Brothers, to try to raise the cash to buy the Redland holding.

Another option might be to find a "friendly" European investor to buy the Redland stake to prevent Lafarge gaining a controlling interest in the German-based tile group.

RBB, valued by brokers at about £800m, has previously been regarded as a poison pill, owing to German laws which protect minority shareholders and restrict dividends paid to Redland.

RBB's operating profits last year slipped from £255.6m to £197.6m as the German construction market went into decline.

Rudolph Agnew, Redland's chairman, said in the company's defence document last week that he was considering a range of options, including a partial or complete break-up.

About 10 groups have expressed interest in buying various parts of Redland's international tile, aggregates and concrete operations although a rival bidder to Lafarge for the entire group has yet to emerge.

Minorco, Hanson, Pioneer and RMC are among those reported to be interested in acquiring Redland's other interests.

Redland's shares dipped 4½p to 329½p yesterday, 9½p ahead of the Lafarge offer.

NEWS DIGEST

Cookson sale to Great Lakes

Cookson Group took the latest step in streamlining its operations yesterday with the *sale of its plastics* additives business, Anzon, for £54m ($90m). Anzon makes fire-retardant additives for the plastics industry and was sold to Great Lakes Chemical Corporation of the US.

Analysts now expect the company to move on acquisitions. One said "the tidying-up is basically done", although a further disposal in its plastics division, Plantpak, is widely expected later this year. They reckon it could spend some £500m on acquisitions, if it were to reduce its interest cover from nine to five times.

Anzon made operating profits of £6.3m on sales of £50m last year. Net assets being sold amount to £22m.

Charis Gresser

US competition hits Willis

A strong pound and the effects of fierce competition in the US drove nine-month profits at insurance broker Willis Corroon sharply lower, dampening hopes of an increased dividend this year. John Reeve, chairman, defended its determination to stay independent in the face of industry consolidation, saying it would benefit in the fourth quarter from internal restructuring.

Pre-tax profits fell 23 per cent to £68.1m ($113m) as revenue from brokerage and *fees slumped* 9 per cent to £484.4m. Premium rates for commercial insurance in the US, where Willis derives nearly half its income, were falling faster than at any other time in the past 10 years following a spate of mergers and acquisitions. With much of Willis's business transacted in dollars, the recent strength in sterling depressed profits by £8.5m.

The group is trying to improve efficiency in the US and said it might sell some North American businesses if it could not lift their performance.

Christopher Adams

Tougher targets for BP

British Petroleum will announce new medium-term financial performance targets next April because it is making such rapid progress in meeting its current goals for the end of the decade.

John Browne, chief executive, said BP was more than two-thirds of the way towards meeting the current target of a cumulative $1.5bn in performance improvements by 2000. That goal should be reached by early next year, he said. About 80 per cent of the improvement came from higher volumes, with lower costs accounting for the remainder.

BP also announced third-quarter net profits of £691m ($1.15bn) before exceptionals. That was at the upper range of analysts' forecasts.

Betterware expansion plans

Betterware yesterday detailed an expansion strategy into at least eight emerging markets, as the home shopping group suffered lacklustre sales in the UK.

The group said it would invest $8m in expanded joint ventures with Avon Products, the door-to-door cosmetics group. Peter Hartley, managing director, said sales from the joint ventures with Avon could reach "several hundred million dollars" in 10 years.

Betterware is launching in five eastern European countries beginning with Hungary, and three Asian countries including Japan. The expansion follows joint ventures with Avon in Latin America.

COMPANIES AND FINANCE: UK

Packing powder into magazine titles

Christopher Price looks at the strategy of Kevin Hand, new chief executive of Emap

Few people will remember Woman on Wheels, the early 1980s magazine for a supposed new breed of female scooter rider.

The title, which carried a free combined nail file and spark-plug remover on the front cover, folded after one issue. The decision was taken by Kevin Hand, the *then newly-appointed* head of Emap's consumer magazine business.

His knack of spotting the losers and backing the winners in the fickle world of publishing paved the way for other senior roles at Emap – culminating in his appointment, confirmed yesterday, as the media group's next chief executive.

He replaces Robin Miller, who is moving to the post of non-executive chairman when Sir John Hoskyns retires next July.

Mr Hand, 46, joined the board eight years ago and since 1994 has been managing director of Emap's French operations. The business was greatly expanded last year with the £145m ($241m) acquisition of three of France's biggest consumer magazines, including Télé Star, a listings title which sells 2m copies a week.

The French business is now the second largest contributor to group profits, and is likely to herald further expansion out of the UK. "We will certainly be looking to do more things in international publishing," says Mr Hand. "France contains some very good opportunities to replicate our success in the UK magazine market."

Until now, the company has concentrated on revamping its French stable, but Mr Hand says the next 18 months will see the group launching new titles.

Germany, where Emap currently has only a small presence, is also in his sights.

Breathing new life into existing titles, and launching new ones, is a strategy which has served the group well in the UK. When Mr Hand took over the magazine business in 1983, it had 20 titles. Six years later, Women on Wheels notwithstanding, the group published 90 magazines, including big-selling titles such as FHM, Elle and Smash Hits.

The market will remain core to Emap, says Mr Hand. However, he says the group is well aware of the increasing competitiveness. "Titles are having to change faster than ever because reader habits are changing. We have to be prepared to respond quickly."

Brendan Corr

Kevin Hand has a knack for spotting losers and backing winners in publishing

He says Emap could be interested in acquiring IPC, the magazine business which was put up for sale last week by Reed Elsevier, although the competition between so many of the two companies' magazines would detract from the current £750m-£1bn price tag being mooted by analysts.

Emap's strength in launching new titles would also make the company cautious over the price it was paying "in markets where we are already strong". Emap could certainly afford to buy IPC. In the year to March 31, net debt fell from £350m to £89m, and analysts are forecasting a modest cash mountain by 1999. Other areas ear-marked for continued investment are business magazines and radio.

Mr Hand's appointment as chief executive and Mr Miller's move to a part-time position marks the end of an era at Emap. Mr Miller joined the company, which started life as a small east Midlands newspaper group, as a trainee reporter in 1965.

He rose to become chief executive in 1985, recruiting David Arculus as managing director on the way. Together, the two oversaw the growth of Emap's market capitalisation from £250m in 1987 to £1.6bn in February this year.

However, despite this success, shareholders are likely to be relieved that the issue of succession has been resolved. For six months at the end of last year, the company was polarised by a rebellion by two non-executive directors who objected to new articles of association.

The revolt ended last December with the highly unusual removal of the two rebels at an extraordinary shareholders' meeting, but not before the issue of succession had been brought into the public arena.

In particular, the question of where Mr Miller and Mr Arculus would fit into a revamped board structure attracted much speculation from analysts and investors.

It was answered in February when Mr Arculus left to join United News & Media as chief operating officer.

Mr Hand admits to having a hard act to follow, but says the strengths of the group will ensure its continuing development: "Emap has achieved its success by having a culture which has allowed young creative talent to thrive. That will continue to be the case."

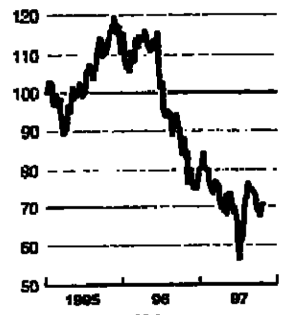
LEX COMMENT

Cookson

It would be nice if Cookson Group's sale of a commodity plastics business marked the end of the pruning. After reforming top management and selling non-core businesses, the company would then look lean, fit and ready to start expanding again. Unfortunately, it needs to do more than this to slough off its conglomerate discount. Of course, the group can always argue that its current five legs are really just three: electronics, ceramics and engineered products. But such presentational juggling would not be worth the annual report it was printed on. Only one of the three legs, electronics, would make a coherent unit. A big chunk of the ceramics division is a poorly performing 50:50 joint venture with Johnson Matthey, which really ought to be sold or bought out. And although "engineered products" could plausibly encompass parts of the plastics business, the result would be a jumble that would benefit from a spring clean.

Cookson

Share price relative to the FTSE All-Share Index



Source: Datastream/ICV

The pruning also needs to go deeper than the business portfolio. Cookson's emphasis has been on sales growth, and fat is bound to have built up. The management is still better at explaining how future projects will have to deliver better returns than at convincingly proposing to sweat the assets they already have. This may be politic with Richard Oster, the man behind the expansion of the early 1990s, still in the chair. But if the tone is not rather different behind the scenes, that re-rating will not come.

Emap takes a look at IPC

By Christopher Price

Emap yesterday became the first potential bidder to express interest in IPC, the UK magazine business put up for sale last week by Reed Elsevier.

Kevin Hand, confirmed yesterday as Emap's new chief executive, said the issue was under consideration – though he expressed reservations about the price tag mooted by some analysts of up to £1bn ($1.66bn).

Other companies likely to be interested in the UK's biggest consumer magazine group include Bertelsmann, GNJ and Bauer of Germany, VNU of the Netherlands and United News & Media.

Lorna Tilbian, media analyst at Panmure Gordon, suggested Emap might team up with another bidder – possibly a continental European group – in an attempt to avoid an inquiry by competition authorities. Emap has about 13 per cent of the consumer magazine market and IPC about 20 per cent.

A joint approach would also allow Emap to divide up the IPC stable and sell on some titles, which include TV Times and Woman.

Reed said yesterday it was proceeding with the auction process for IPC.

INTERNATIONAL CAPITAL MARKETS

Europe ends with modest gains

GOVERNMENT BONDS

By Vincent Boland and James Wilson in London and John Labate in New York

European bond markets recovered some of Monday's losses in quiet trading yesterday, taking their cue from strength in German bunds. A weaker start on Wall Street kept gains relatively modest, however, as investors kept a wary eye on volatile equity markets.

GERMAN BUNDS outperformed all other main European bond markets, with spreads at the 10-year end against most markets widening from overnight levels. The December bund future settled in London at 102.62, up 0.17, at the high end of a trading range of just 0.22. Volume on Liffe was moderate at 95,000 contracts.

Comments by Otmar Issing, chief economist at the Bundesbank, to the effect that the central bank was prepared to be pre-emptive in fighting inflation, was seen as positive for bond markets in the short term. His comments were interpreted as meaning further German interest rate rises could not be ruled out but were not imminent.

"It is a message the markets are very well aware of and take very seriously. It is also something they are comfortable with – most are convinced the Bundesbank is prepared to be pre-emptive on inflation," said David Brickman, international economist at PaineWebber.

UK GILTS had a quiet day with trading thin in a narrow range. The December contract ended up $\frac{1}{32}$ at 118¼, with 72,000 contracts traded. Most attention is on the meeting of the Bank of England's monetary policy committee, which starts today.

Kit Juckes, bond strategist at NatWest Markets, said: "The gilt market will not really take off until you get softness in economic data and people start pricing in rate cuts. If we start pricing in lower base rates then the curve can continue to be pretty inverted and the market can outperform the rest of Europe."

Data from the Halifax house price index showed house price inflation of 5.4 per cent in the year to October, against 6.9 per cent in the year to September.

Andrew Roberts, gilt strategist at UBS, said he was surprised the market had not rallied at the short end on that data, which suggested asset price inflation was not as significant as the Bank of England might have feared.

Other European bond markets were underpinned by bunds and developments on equity markets, closing moderately higher though with little real investor activity. ITALIAN BTPs ended near the top of their narrow trading range, still benefiting from the weekend's agreement on pensions reform.

The December future settled at 111.88, up 0.22, with the spread over 10-year bunds unchanged at 63 basis points. Inflation data showing the consumer price index at 1.6 per cent for October, compared with 1.4 per cent a month earlier, was seen as in line with forecasts, providing further support to the market.

SPANISH BONOS also had a quiet session, with the December future settling at 103.25, up 0.16. Traders said the market was likely to trade sideways as it absorbed new bono auctions due today of 5-year and 15-year bonos. The treasury yesterday sold Pta72bn of three-year bonds and Pta217bn of 10-year bonds.

US TREASURIES moved lower as traders prepared for new auctions of Treasury issues. By midday the benchmark 30-year bond had fallen ¼ at $101\frac{18}{32}$, sending the yield up to 6.226 per cent. The 10-year bond was down $\frac{3}{16}$ at $101\frac{18}{32}$, yielding 5.923 per cent while the two-year note inched $\frac{1}{32}$ lower at $99\frac{25}{32}$, to yield 5.692 per cent.

US bonds were stronger overnight as the Hong Kong stock exchange traded lower, but prices moved lower in morning trading as US stocks traded only modestly lower.

"With diminishing volatility in stocks, bond traders are paying more attention to other things, like supply," said Kevin Logan, senior market economist at Dresdner, Kleinwort Benson in New York. Some $14bn in three-year notes was due to be auctioned later in the afternoon, while $11bn in 10-year notes should hit the market today. The new auctions continue the trend of a diminishing supply of Treasury issues from previous months and quarters.

A report on leading economic indicators rose 0.2 per cent for September, but the report had little impact on morning trading.

Emu 'set to benefit high-yield sector'

By Samer Iskandar

European economic and monetary union will favour the development of nascent markets for European high-yield bonds and credit derivatives, according to Standard & Poor's, the US credit rating agency.

Emu is likely to lead to the development of the first domestic bond market large enough to challenge the size of the US debt market, S&P also says in a report published today.

"European financial markets have already begun to evolve into what many analysts believe a post-Emu world will look like," S&P says.

The high-yield debt sector should benefit particularly from the move to a single currency – the euro – as European companies turn increasingly to the bond market to add long-term funding to complement their reliance on bank loans.

Although no substantial rating changes are expected as a direct result of Emu, S&P expects a positive overall effect on the credit quality of corporate borrowers.

The transition to the euro, however, is likely to challenge a large number of borrowers, including governments struggling to meet the convergence criteria set out in the Maastricht Treaty and banks which will lose an important source of revenues with the removal of currency risk.

S&P, however, is optimistic that Emu will offer positive potential for "well-prepared firms" and "banks that survive the transition". *Standard & Poor's CreditWeek, November 5 1997.*

Derivatives trades hit fresh highs

By Nikki Tait in Chicago and Samer Iskandar in London

Volatility on world financial markets last month gave a huge boost to derivatives markets, with trading volumes on the leading exchanges lifting records.

The Chicago Board of Trade regained its worldwide lead, which was temporarily seized in September by the London International Financial Futures and Options Exchange.

The CBOT yesterday said it had traded 28.6m contracts in October – up 53 per cent on the same month last year and almost 49 per cent higher than September.

Financial derivatives saw the sharpest increases. Trading in US Treasury bond futures was up 84.1 per cent on October 1996, with 12.5m contracts changing hands.

The CBOT's new Dow Jones futures contracts, however, put in a more modest performance, in spite of the huge marketing effort which surrounded their launch. During the month, just over 300,000 contracts were traded, for an average daily volume of 15,970 contracts.

Earlier this week the Chicago Mercantile Exchange, the second largest of the Chicago derivatives exchanges, also announced a sharp rise in trading volumes for October, at 22.9m contracts. This figure beat the previous record of 20.2m contracts set in May 1994, and represented an increase of 55 per cent on levels of a year ago.

The surge in activity also spilled over into the exchanges' computerised after-hours systems. Trading on the CME's Globex system totalled a record 734,374 contracts, while business on the CBOT's Project A trading system rose to a new high of 950,646 contracts.

In London, Liffe set a record of 25.7m contracts. With 181.8m contracts trading in the first 10 months, Liffe surpassed its 1996 record. The exchange also had its busiest day ever on October 9, trading almost 2m contracts in a single session.

Liffe attributed the rise in volumes to uncertainty over European monetary union and last week's turmoil in the financial markets.

In continental Europe, Frankfurt's Deutsche Terminbörse traded a record 13m lots, 33 per cent ahead of the previous month and up more than 90 per cent year-on-year.

Matif, the French derivatives exchange, had its busiest October with 7.7m contracts traded. Volume in the Pibor three-month interest rate contract was up almost 50 per cent with 1.7m contracts traded.

● Trading on the DTB was suspended for more than 30 minutes yesterday, due to problems with computer hardware. An exchange official said trading had stopped at about 1pm (Frankfurt time) and resumed at 1.40pm.

Separately, DTB announced it was launching the first futures contract on implied volatility. The Volax future will allow traders to bet on – or protect themselves against – sharp changes in the expected volatility of the Dax index of leading German shares.

World Bank issue well met

INTERNATIONAL BONDS

By Edward Luce

The World Bank yesterday dipped its toe into the water with its first offering since the markets went into freefall two weeks ago. An official at Citibank, joint lead with Cariplo, J.P. Morgan and BCI, said the deal was increased by L100bn to L300bn owing to "healthy" demand from institutional investors.

The bond, which provides a combination of fixed-rate and floating-rate elements known as a "reverse floater" bond, offers a coupon of 11.05 per cent to investors for the first two years of the deal. This compares with a coupon of 10.25 per cent on the last lira-denominated "reverse floater" in September.

After two years, the bond converts to a floating rate coupon of 16 per cent minus double the prevailing Libor rate. This is designed to give investors the incentive of punting on the possibility of very low short-term floating rates after the euro comes into being in January 1999.

"This has been a very good post-turmoil debut," said the official. The banker added that from the borrower's point of view, the higher coupon was fully compensated for by the availability of higher swap rates into US dollars since the market slide late last month.

Elsewhere, the secondary markets continued to stabilise although syndicate officials said that investment banks still had large inventories of recent bond issues on their books.

In addition, investment banks were still unwinding positions on their proprietary operations which had sustained heavy losses over the past fortnight.

"The end-account investors are the ones supporting the market by snapping up bargains," said one syndicate head. "Investment banks are still long on a lot of emerging market paper." Officials estimated that losses amounted to between one and three months of investment banks' 1997 profits.

New international bond issues

Borrower	Amount m.	Coupon %	Price	Maturity	Fees %	Spread bp	Book-runner
■ D-MARKS							
GECC(l)	300	5.00	100.14R	Dec 2001	0.225R	+7(4¾%Nov01)	CSFB/Goldman Sachs
Eurofima(s)	150	4.625	99.7875R	Nov 2000	0.1875R	+9(5¼%Aug00)	HSBC Trinkaus
■ STERLING							
Opus Series 1, Class A(a)‡	132	(a1,l)	99.92R	Jun 2003	0.175R	-	Deutsche Morgan Grenfell
■ ITALIAN LIRE							
World Bank‡	300bn	(b)	100.625	Dec 2007	0.925	-	BCI/Cariplo/Citibank/JPM
CIR International(c)‡	100bn	(c1,s)	100.00R	Jul 2002	0.375R	-	BCI/Chase Manhattan Intl
■ DANISH KRONER							
Canada	500	5.75	101.96	Dec 2004	1.875	-	Bank Brussels Lambert

Final terms, non-callable unless stated. Yield spread (over relevant government bond) at launch supplied by lead manager. ‡ Floating-rate note. R: fixed re-offer price; fees shown at re-offer level. a) Originator: HFC Bank. Legal maturity: 14/9/07. Average life: 4.9 yrs. Dates assume extension option exercised. a1) 3-mth Libor +10bp. a2) Class B: £9m. Class C: £6¾m. Subordinated loan: £2¼m. b) 11.05% to 18/12/99, then 16% - 2 x 12-mth Libor. c) Fungible with L200bn. No accrued. Callable and puttable in Jul 00 at par. c1) 3-mth Libor +50bp. l) Long 1st coupon. s) Short 1st coupon.

WORLD BOND PRICES

BENCHMARK GOVERNMENT BONDS

Nov 4	Red Date	Coupon	Bid Price	Bid Yield	Day chg yield	Wk chg yield	Month chg yld	Year chg yld
Australia	03/99	6.250	101.6872	4.94	+0.02	+0.12	+0.23	-1.47
	10/07	10.000	128.7358	6.06	+0.03	+0.22	+0.03	-1.26
Austria	09/99	7.000	104.2600	4.56	-0.01	-0.03	+0.30	+0.84
	07/07	5.625	99.6800	5.66	-0.02	-0.04	+0.21	-0.40
Belgium	04/99	7.000	103.6500	4.37	-0.03	-0.04	+0.26	+0.61
	03/07	6.250	103.8200	5.74	-0.04	-0.04	+0.25	-0.40
Canada	03/99	4.000	99.9600	4.03	+0.03	+0.03	+0.27	+0.02
	06/07	7.250	112.3500	5.55	+0.01	+0.01	+0.05	-0.75
Denmark	12/99	6.000	102.3000	4.81	-0.02	-	+0.25	+0.32
	11/07	7.000	106.1600	6.16	-0.01	-0.02	+0.23	-0.74
Finland	01/99	11.000	107.4850	4.37	+0.02	+0.12	+0.30	+0.34
	04/06	7.250	109.4910	5.79	+0.01	-0.01	+0.27	-0.81
France	11/99	7.000	104.9200	4.39	-0.01	-0.04	+0.29	+0.56
	10/04	6.750	108.1800	5.31	-0.02	-0.03	+0.23	-0.18
	10/07	5.500	99.1300	5.62	-0.02	-0.04	+0.23	-0.35
	10/25	6.000	97.0300	6.23	-0.02	-0.05	+0.22	-0.60
Germany	06/99	3.500	98.8700	4.23	-0.02	-	+0.30	+0.54
	07/04	6.750	107.8600	5.32	-0.01	-0.04	+0.24	-0.31
	07/07	6.000	102.8900	5.60	-0.03	-0.05	+0.20	-0.42
	07/27	6.500	103.5000	6.23	-0.02	-0.04	+0.20	-0.61
Ireland	04/99	6.250	101.0900	5.39	-0.01	-0.07	-	-0.94
	08/06	8.000	112.7500	6.08	-0.02	-0.02	+0.21	-0.96
Italy	05/00	6.000	101.4700	5.37	-0.01	-0.06	+0.09	-1.51
	05/02	6.250	102.3800	5.64	-0.03	-0.06	+0.12	-1.62
	07/07	6.750	104.4800	6.13	-0.02	-0.07	+0.12	-1.98
	11/26	7.250	107.8000	6.64	-0.02	-0.06	+0.04	-2.06
Japan	06/99	4.800	106.9500	0.46	-	-	-0.04	-0.36
	12/02	4.800	117.6100	1.23	-0.01	-0.01	-0.14	-0.64
	09/05	3.000	109.6600	1.68	-	-	-0.17	-0.84
	03/17	3.500	115.9200	2.46	-0.01	-0.03	-0.24	-0.79
Netherlands	06/99	7.500	104.7400	4.35	-	+0.05	+0.27	+0.66
	02/07	5.750	101.1900	5.58	-0.02	-0.05	+0.21	-0.31
New Zealand	02/00	8.500	99.1369	6.90	-0.02	+0.08	+0.21	+0.01
	11/06	8.000	108.6246	6.69	+0.04	+0.25	+0.15	-0.56
Norway	01/99	9.000	105.2300	4.51	-0.02	+0.03	+0.34	-0.87
	01/07	6.750	106.5500	5.81	-	+0.05	+0.22	-0.98
Portugal	03/99	8.500	104.4204	5.06	-0.06	-0.06	+0.17	-1.58
	02/07	6.625	104.0306	6.04	-	-	+0.20	-1.61
Spain	07/99	7.400	104.0587	4.87	-0.01	-0.02	+0.20	-1.62
	03/07	7.350	109.4337	6.00	-0.02	-0.02	+0.26	-1.79
Sweden	01/99	11.000	106.6760	5.11	-0.01	+0.06	+0.37	-0.42
	08/07	8.000	111.3210	6.40	-	+0.04	+0.45	-1.10
Switzerland	03/99	4.000	102.5800	2.02	-0.03	+0.02	+0.36	-0.10
	08/07	4.500	107.1600	3.60	-0.01	+0.05	+0.20	-0.38
UK	08/98	6.000	98.5156	6.90	+0.01	+0.02	+0.10	+0.27
	11/04	6.750	100.6718	6.63	+0.02	+0.02	+0.40	-0.86
	12/07	7.250	105.0313	6.56	-0.02	-0.04	+0.37	-1.14
	06/21	8.000	116.1250	6.49	-0.01	-0.02	+0.22	-1.47
US	07/99	5.875	100.1880	5.75	+0.04	+0.02	+0.03	-0.01
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

BOND FUTURES AND OPTIONS

France

■ NOTIONAL FRENCH BOND FUTURES (MATIF) FFr500,000

	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Dec	98.96	98.96	+0.28	98.98	98.76	62,779	102,391
Mar	98.24	98.42	+0.28	98.44	98.24	2,707	9,381
Jun	97,80	98.00	+0.28	97.80	97.80	2	-

■ LONG TERM FRENCH BOND OPTIONS (MATIF)

Germany

■ NOTIONAL GERMAN BUND FUTURES (LIFFE)* DM250,000 100ths of 100%

■ BUND FUTURES OPTIONS (LIFFE) DM250,000 points of 100%

■ NOTIONAL GERMAN BUND (BOBL) FUTURES (DTB) DM250,000 100ths of 100%

Italy

■ NOTIONAL ITALIAN GOVT. BOND (BTP) FUTURES (LIFFE)* Lira 200m 100ths of 100%

■ ITALIAN GOVT. BOND (BTP) FUTURES OPTIONS (LIFFE) Lira200m 100ths of 100%

Spain

■ NOTIONAL SPANISH BOND FUTURES (MEFF)

UK

■ NOTIONAL UK GILT FUTURES (LIFFE)* £50,000 32nds of 100%

■ LONG GILT FUTURES OPTIONS (LIFFE) £50,000 64ths of 100%

Ecu

■ ECU BOND FUTURES (MATIF) ECU100,000

US

■ US TREASURY BOND FUTURES (CBT) $100,000 32nds of 100%

Japan

■ NOTIONAL LONG TERM JAPANESE GOVT. BOND FUTURES (LIFFE) Y100m 100ths of 100%

* LIFFE futures also traded on APT. All Open Interest figs. are for previous day.

US CORPORATE BONDS

Nov 3	Red date	Coupn	S & P Rating	Bid price	Bid yield	Day's chge yld	Mth's chge yld	Sprd v Govts
■ UTILITIES								
Pac Bell	07/02	7.25	AA–	104.1308	6.21	+0.01	-0.10	+0.50
NY Tel	08/25	7.00	A+	98.4470	7.12	-0.02	-0.08	+0.96
CWE	05/08	8.00	BBB	108.9431	6.79	-0.01	-0.12	+0.97

INTERNATIONAL BONDS

Nov 4	Red date	Coupon	S & P Rating	Bid price	Bid yld	Day's chge yld	Mth's chge yld	Spread v Govts
■ EURO DM								
EIB	02/07	5.750	AAA	100.3500	5.70	-0.02	+0.24	+0.10
Spain	01/07	5.750	AA	99.8900	5.76	-0.03	+0.26	+0.16
Philip Morris	03/04	5.375	A	98.1711	5.72	-0.01	+0.21	+0.40

10 YEAR BENCHMARK SPREADS

EMERGING MARKET BONDS

US INTEREST RATES

UK BONDS

FTSE Actuaries Govt. Securities

UK Indices

FT Fixed Interest Indices

UK GILTS PRICES

Other Fixed Interest

CURRENCIES AND MONEY

Yen suffers in wake of Asian turmoil

MARKETS REPORT

By Simon Kuper

The yen yesterday slumped to its lowest point against the D-Mark since May, hit by fears over Japan's financial sector, the recent slides in south east Asian markets, and by Europe's *nascent* economic recovery.

Monday's failure of Sanyo Securities, the Japanese brokerage, continued to weigh on traders' minds.

The D-Mark was buoyed against the dollar by Russia's rescheduling of $25bn in debt with the London Club of international creditors. A greater share of the debt is to be denominated in dollars, and traders said Russia sold dollars in the market yesterday in order to hedge this portion of debt.

The *onshore Thai* baht jumped nearly 6 per cent against the dollar after Chavalit Yongchaiyuch, Thailand's prime minister, said he would resign tomorrow. The market believes that the country is now more likely to take action to tackle its economic problems. The Indonesian rupiah, which jumped nearly 9 per cent on Monday thanks to a $40bn international rescue package and concerted market intervention, *fell back* just 2 per cent yesterday.

The 4 per cent fall in the Hong Kong stock market yesterday barely dented south-east Asian currencies. But the South Korean and Taiwanese central banks both had to intervene to support their currencies.

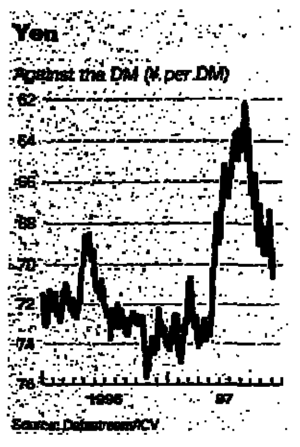
The foreign exchange market is no longer tracking the hour-by-hour moves in global stock markets, as nerves recover after last week's equity slides.

The D-Mark jumped Y1.24 to close in London at Y70.81 against the yen. It gained 1.5 pfennigs against the dollar to DM1.721. The dollar rose Y1.1 against the yen to Y121.9, but faces stiff resistance at Y122 and at Y123.

■ *The D-Mark seems to be* emerging as the market's favourite of the Big Three currencies in the wake of the Asian crisis. Goldman Sachs points out that about 40 per cent of Japanese exports go to the rest of Asia, while the US sends about 30 per cent of its exports to Asia including Japan. European economies are far less vulnerable to a slowdown in Asia, the bank says.

It also notes that American dependence on foreign markets has grown since *1990, with US exports having* risen from 9 per cent of gross domestic product then to more than 13 per cent now.

"The dollar will suffer at least as much as the yen, possibly more", from the Asian downturn, Goldman Sachs concludes.



■ The emerging markets' currencies crisis is changing shape. South-east Asia has been breathing more easily since Friday, as first Indonesia and now Thailand seem to have begun trying to tackle their problems.

Desmond Lachman, head of emerging markets research at Salomon Brothers in New York, said: "There was quite a big turnaround with the Indonesian package. It was a lot larger than anyone had thought. And the content seemed to be in the right direction, *going into areas like banking* sector reform, the monopolies, the car project." Indonesia has also impressed markets by moving to close 16 troubled banks.

Mr Lachman said Hong Kong's vigorous defence of its currency had further buoyed sentiment in the region.

The focus of speculative attacks, he said, had now shifted to north Asia, particularly Korea. The Brazilian *real was also still in trouble.* Peter von Maydell, senior currency economist at UBS in London, added: "The weakness is only just beginning in north Asia."

■ Goldman Sachs, whose *power to move medium to* minor currencies is notorious, says it has become more bearish on the Australian dollar, the New Zealand dollar, and the Greek drachma. It has slated the first two for the drop because the Antipodeans export heavily to Asia.

The drachma's peg to the ecu survived large bond-driven outflows last week. But Goldman says that Greece, like Italy before 1992, is trying to achieve macro-economic stability through an exchange rate anchor, leaving fiscal and monetary policy too loose. That boosted the real exchange rate 17 per cent between January 1993 and May 1997.

■ Pound in New York

Nov 4	Latest	Prev. close
£ spot	1.6855	1.6765
1 mth	1.6830	1.6744
3 mth	1.6789	1.6700
1 yr	1.6607	1.6520

■ OTHER CURRENCIES

Nov 4	£	$
Czech Rp	55.1938 - 55.2940	32.7540 - 32.7940
Hungary	328.022 - 328.301	194.660 - 194.710
Iran	5058.30 - 5055.30	3000.00 - 3000.00
Kuwait	0.5111 - 0.5116	0.3033 - 0.3034
Poland	5.7782 - 5.7986	3.4290 - 3.4390
Russia	9948.83 - 9958.11	5904.00 - 5906.00
U.A.E.	6.1885 - 6.1932	3.6725 - 3.6731

POUND SPOT FORWARD AGAINST THE POUND

Nov 4		Closing mid-point	Change on day	Bid/offer spread	Day's Mid high	Day's Mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	Bank of Eng. Index
Europe													
Austria	(Sch)	20.4184	–0.0738	082 - 286	20.4876	20.3592	20.3569	3.6	20.2395	3.5	19.8078	3.0	102.7
Belgium	(BFr)	59.8388	–0.2314	873 - 903	60.0310	59.5630	59.6699	3.4	59.3263	3.4	58.0609	3.0	102.4
Denmark	(DKr)	11.0375	–0.046	325 - 424	11.0869	11.0134	11.0059	3.4	10.9473	3.3	10.7458	2.8	104.7
Finland	(FM)	8.7215	–0.019	145 - 284	8.7450	8.6920	8.6937	3.8	8.6437	3.6	8.4737	2.8	81.6
France	(FFr)	9.7165	–0.0235	117 - 212	9.7828	9.6907	9.686	3.8	9.627	3.7	9.418	3.1	105.9
Germany	(DM)	2.9010	–0.0105	996 - 023	2.9144	2.8923	2.892	3.7	2.8746	3.6	2.8124	3.1	103.8
Greece	(Dr)	456.064	–0.231	786 - 343	457.331	454.268	457.542	–3.9	460.074	–3.5	469.851	–3.0	65.6
Ireland	(I£)	1.1144	–0.0063	126 - 162	1.1220	1.1141	1.1136	0.9	1.1114	1.1	1.0973	1.5	98.0
Italy	(L)	2843.27	–8.39	142 - 513	2853.09	2834.50	2842.34	0.4	2838.39	0.7	2801.18	1.5	78.3
Luxembourg	(LFr)	59.8388	–0.2314	873 - 903	60.0310	59.5630	59.6699	3.4	59.3263	3.4	58.0609	3.0	102.4
Netherlands	(Fl)	3.2696	–0.0085	677 - 714	3.2852	3.2617	3.2591	3.9	3.2394	3.7	3.1696	3.1	101.7
Norway	(NKr)	11.8323	–0.0133	259 - 386	11.8674	11.7597	11.7979	3.5	11.737	3.2	11.5142	2.7	99.0
Portugal	(Es)	296.034	–1.063	819 - 248	297.237	295.383	295.593	1.8	294.547	2.0	289.384	2.2	92.0
Spain	(Pta)	244.884	–0.996	727 - 041	245.870	244.300	244.459	2.1	243.561	2.2	239.289	2.3	77.2
Sweden	(SKr)	12.6665	–0.006	581 - 748	12.6748	12.6106	12.6372	2.8	12.5832	2.6	12.4171	2.0	86.0
Switzerland	(SFr)	2.3690	–0.0053	667 - 693	2.3699	2.3533	2.3571	5.5	2.336	5.4	2.2534	4.8	107.7
UK	(£)	-	-	-	-	-	-	-	-	-	-	-	102.9
Ecu	-	1.4693	–0.0064	685 - 700	1.4772	1.4665	1.4658	2.9	1.459	2.8	1.4326	2.5	-
SDR†	-	1.212929	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	1.6853	+0.0086	848 - 858	1.6858	1.6782	-	-	-	-	-	-	-
Brazil	(R$)	1.8602	+0.0112	595 - 608	1.8608	1.8474	-	-	-	-	-	-	-
Canada	(C$)	2.3667	+0.0124	655 - 678	2.3678	2.3559	2.3598	3.5	2.3472	3.3	2.3032	2.7	83.3
Mexico	(New Peso)	13.9315	+0.1046	105 - 525	13.9525	13.7391	14.0544	–10.5	14.3011	–10.6	15.2754	–9.6	-
USA	($)	1.6856	+0.0086	851 - 861	1.6861	1.6755	1.6836	1.4	1.6792	1.5	1.6618	1.4	104.5
Pacific/Middle East/Africa													
Australia	(A$)	2.3840	+0.0324	824 - 855	2.3928	2.3630	2.3798	2.2	2.3697	2.4	2.3297	2.3	88.8
Hong Kong	(HK$)	13.0365	+0.0649	309 - 420	13.0420	12.9630	12.9104	11.6	13.2332	–6.0	13.4762	–3.4	-
India	(Rs)	61.2800	+0.2732	197 - 403	61.3403	60.9470	-	-	-	-	-	-	-
Israel	(Shk)	5.9696	+0.0515	597 - 798	5.9870	5.9510	-	-	-	-	-	-	-
Japan	(Y)	205.407	+2.842	279 - 536	205.536	203.370	204.252	6.7	201.977	6.7	192.437	6.3	124.5
Malaysia	(M$)	5.5326	+0.1238	229 - 422	5.5422	5.4099	5.5424	–2.1	5.5663	–2.4	5.7102	–3.2	-
New Zealand	(NZ$)	2.6903	+0.0387	884 - 922	2.6950	2.6556	2.692	–0.7	2.6945	–0.6	2.7016	–0.4	105.5
Philippines	(Peso)	58.6421	–0.3884	404 - 437	59.3127	58.1567	59.5279	–18.1	60.6097	–13.4	65.9591	–12.5	-
Saudi Arabia	(SR)	6.3221	+0.0321	200 - 242	6.3242	6.2848	6.3146	1.4	6.3008	1.3	6.2489	1.2	-
Singapore	(S$)	2.6355	+0.0495	330 - 379	2.6405	2.5847	2.634	0.7	2.629	1.0	2.592	1.7	-
South Africa	(R)	8.1381	+0.1136	331 - 430	8.1430	8.0161	8.1911	–7.8	8.2876	–7.3	8.6619	–6.4	-
South Korea	(Won)	1620.70	–5.99	938 - 203	1627.66	1599.13	-	-	-	-	-	-	-
Taiwan	(T$)	51.7724	–0.6029	326 - 122	52.4051	51.4763	51.7249	1.1	51.6394	1.0	51.3087	0.9	-
Thailand	(Bt)	65.2328	–3.44	449 - 207	67.4760	64.4610	65.2441	–0.2	65.5845	–2.2	68.4521	–4.9	-

† Rates for Nov 3. Bid/offer spreads in the Pound Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. Sterling index calculated by the Bank of England. Base average 1990 = 100. Index rebased 1/2/95. Bid, Offer and Mid-rates in both this and the Dollar Spot tables derived from THE WM/REUTERS CLOSING SPOT RATES. Some values are rounded by the F.T. The exchange rates printed in this table are also available on the internet at http://www.FT.com

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Nov 4		Closing mid-point	Change on day	Bid/offer spread	Day's mid high	Day's mid low	One month Rate	One month %PA	Three months Rate	Three months %PA	One year Rate	One year %PA	J.P. Morgan Index
Europe													
Austria	(Sch)	12.1135	–0.1061	110 - 159	12.2161	12.0940	12.0925	2.1	12.051	2.1	11.901	1.8	102.3
Belgium	(BFr)	35.5000	–0.32	800 - 200	35.7430	35.4690	35.4453	1.9	35.324	2.0	34.884	1.7	102.3
Denmark	(DKr)	6.5481	–0.0604	471 - 491	6.6126	6.5406	6.5377	1.9	6.5183	1.8	6.4571	1.4	103.9
Finland	(FM)	5.1741	–0.0379	715 - 767	5.2126	5.1672	5.1642	2.3	5.1464	2.1	5.0911	1.6	80.9
France	(FFr)	5.7644	–0.0436	633 - 655	5.8195	5.7560	5.7536	2.2	5.732	2.3	5.6584	1.8	105.2
Germany	(DM)	1.7210	–0.0152	207 - 213	1.7375	1.7183	1.7178	2.2	1.7115	2.2	1.6897	1.8	103.0
Greece	(Dr)	270.565	–1.525	480 - 650	272.160	269.930	271.84	–5.7	274.08	–5.2	282.8	–4.5	65.4
Ireland	(I£)	1.5126	+0.0188	106 - 146	1.5146	1.4938	1.5117	0.7	1.5111	0.4	1.5159	–0.2	-
Italy	(L)	1686.80	–13.65	620 - 740	1701.70	1684.40	1688.54	–1.2	1690.38	–0.8	1683.73	0.2	75.9
Luxembourg	(LFr)	35.5000	–0.32	800 - 200	35.7430	35.4690	35.4453	1.9	35.324	2.0	34.884	1.7	102.3
Netherlands	(Fl)	1.9397	–0.0151	392 - 402	1.9583	1.9370	1.9359	2.4	1.9287	2.3	1.9043	1.8	101.5
Norway	(NKr)	7.0196	–0.044	179 - 213	7.0825	6.9855	7.0081	2.0	6.9893	1.8	6.9181	1.4	98.3
Portugal	(Es)	175.625	–1.535	550 - 700	177.280	175.490	175.595	0.2	175.398	0.5	173.905	1.0	92.4
Spain	(Pta)	145.280	–1.34	230 - 330	146.300	145.200	145.219	0.5	145.035	0.7	143.8	1.0	76.8
Sweden	(SKr)	7.5145	–0.0421	118 - 172	7.5516	7.4918	7.5068	1.2	7.4924	1.2	7.4615	0.7	85.8
Switzerland	(SFr)	1.4049	–0.0103	045 - 052	1.4140	1.3995	1.4002	4.0	1.3909	4.0	1.3534	3.7	107.5
UK	(£)	1.6856	+0.0086	851 - 861	1.6861	1.6755	1.6836	1.4	1.6792	1.5	1.6618	1.4	102.6
Ecu	-	1.1473	+0.0108	470 - 475	1.1482	1.1391	1.1484	–1.2	1.1508	–1.2	1.1607	–1.2	-
SDR†	-	0.72509	-	-	-	-	-	-	-	-	-	-	-
Americas													
Argentina	(Peso)	0.9998	-	998 - 998	0.9998	0.9998	-	-	-	-	-	-	-
Brazil	(R$)	1.1036	+0.001	035 - 036	1.1043	1.1027	-	-	-	-	-	-	-
Canada	(C$)	1.4041	+0.0002	038 - 043	1.4063	1.4023	1.4017	2.1	1.3973	1.9	1.3831	1.5	83.1
Mexico	(New Peso)	8.2650	+0.02	550 - 750	8.2750	8.2550	8.3505	–12.4	8.521	–12.4	9.2	–11.3	-
USA	($)	-	-	-	-	-	-	-	-	-	-	-	105.5
Pacific/Middle East/Africa													
Australia	(A$)	1.4143	+0.0121	138 - 148	1.4148	1.4138	1.4135	0.7	1.4109	1.0	1.4002	1.0	90.6
Hong Kong	(HK$)	7.7340	–0.001	330 - 350	7.7380	7.7330	7.8215	–13.6	7.894	–7.8	8.109	–4.8	-
India	(Rs)	36.3550	–0.0235	300 - 800	36.3820	36.3300	-	-	-	-	-	-	-
Israel	(Shk)	3.5416	+0.0125	367 - 465	3.5527	3.5303	-	-	-	-	-	-	-
Japan	(Y)	121.860	+1.07	820 - 900	121.930	121.250	121.31	5.4	120.21	5.4	115.415	5.3	127.0
Malaysia	(M$)	3.2823	+0.057	775 - 870	3.2870	3.2250	3.2928	–3.8	3.3158	–4.1	3.4373	–4.7	-
New Zealand	(NZ$)	1.5960	+0.0148	954 - 967	1.5967	1.5954	1.5991	–2.3	1.6045	–2.1	1.6233	–1.7	-
Philippines	(Peso)	34.7900	–0.41	400 - 400	35.4000	34.5000	35.3785	–20.3	36.129	–15.4	39.7835	–14.4	-
Saudi Arabia	(SR)	3.7507	–0.0001	505 - 508	3.7508	3.7505	3.7511	–0.1	3.7518	–0.1	3.755	–0.1	-
Singapore	(S$)	1.5635	+0.0215	625 - 645	1.5660	1.5410	1.5665	–2.3	1.5655	–0.5	1.5575	0.4	-
South Africa	(R)	4.8280	+0.043	265 - 295	4.8295	4.7800	4.8667	–9.6	4.9376	–9.1	5.215	–8.0	-
South Korea	(Won)	961.500	–8.5	000 - 000	970.100	953.000	-	-	-	-	-	-	-
Taiwan	(T$)	30.7145	–0.517	000 - 290	31.2400	30.6900	30.7255	–0.4	30.747	–0.4	30.827	–0.4	-
Thailand	(Bt)	38.7000	–2.25	000 - 000	40.2000	38.4500	38.7575	–1.8	39.06	–3.7	41.2	–6.5	-

† SDR rate per $ for Nov 3. Bid/offer spreads in the Dollar Spot table show only the last three decimal places. Forward rates are not directly quoted to the market but are implied by current interest rates. UK, Ireland & ECU are quoted in US currency. J.P. Morgan nominal indices Nov 3: Base average 1990=100. The exchange rates printed in this table are also available on the internet at http://www.FT.com

WORLD INTEREST RATES

MONEY RATES

November 4	Over night	One month	Three mths	Six mths	One year	Lomb. inter.	Dis. rate	Repo rate
Belgium	[illegible]	[illegible]	[illegible]	4	[illegible]	6.00	2.75	-
France	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.30	-	4.75
Germany	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.50	2.50	3.30
Ireland	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	6.75
Italy	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.75	6.25	6.02
Netherlands	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	2.75	3.30
Switzerland	[illegible]	[illegible]	[illegible]	2	[illegible]	-	1.00	-
US	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	5.00	-
Japan	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	0.50	-
■ $ LIBOR FT London								
Interbank Fixing	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
US Dollar CDs	-	5.46	5.49	5.51	5.66	-	-	-
ECU Linked Ds	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-
SDR Linked Ds	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-

$ LIBOR interbank fixing rates are offered rates for $10m quoted to the market by four reference banks at 11am each working day. The banks are: Bankers Trust, Bank of Tokyo Mitsubishi, Barclays and National Westminster.
Mid rates are shown for the domestic Money Rates, US$ CDs, ECU & SDR Linked Deposits (Ds)

EURO CURRENCY INTEREST RATES

Nov 4	Short term	7 days notice	One month	Three months	Six months	One year
Belgian Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Danish Krone	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
German Mark	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Dutch Guilder	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
French Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Portuguese Esc.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Spanish Peseta	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sterling	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Swiss Franc	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Canadian Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
US Dollar	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Italian Lira	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Japanese Yen	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Asian $Sing	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Short term rates are call for the US Dollar and Yen, others: two days' notice.

■ THREE MONTH PIBOR FUTURES (MATIF) Paris interbank offered rate

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	96.23	96.25	+0.02	96.26	96.23	11,268	48,878
Mar	95.96	95.97	+0.02	95.98	95.95	8,600	47,425
Jun	95.72	95.74	+0.02	95.75	95.72	73	31,136

■ THREE MONTH EUROMARK FUTURES (LIFFE)* DM1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	96.24	96.25	+0.02	96.26	96.24	37171	309978
Mar	95.99	96.00	+0.01	96.01	95.98	39772	326952
Jun	95.77	95.76	-	95.78	95.75	23429	286343
Sep	95.58	95.57	-	95.59	95.56	14967	197906

■ ONE MONTH EUROMARK FUTURES (LIFFE)* DM3m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Nov		96.50	+0.01			0	148
Dec		96.23	+0.01			0	6109
Jan		96.31	+0.01			0	200
Feb		96.19	+0.01			0	50

■ THREE MONTH EUROLIRA FUTURES (LIFFE)* L1000m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	93.73	93.72	-	93.73	93.70	8157	109994
Mar	94.45	94.45	-	94.48	94.45	6126	106125
Jun	94.94	94.94	+0.02	94.96	94.93	6039	108537
Sep	95.07	95.07	+0.02	95.09	95.06	3625	65219

■ THREE MONTH EURO SWISS FRANC FUTURES (LIFFE) SFr1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	98.00	97.98	-0.01	98.01	97.96	5714	76825
Mar	97.80	97.81	+0.01	97.83	97.79	4219	50823
Jun	97.59	97.60	+0.02	97.61	97.58	2931	33368
Sep	97.40	97.41	+0.02	97.42	97.39	2650	18526

■ THREE MONTH EUROYEN FUTURES (LIFFE) Y100m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec		99.48	-0.01			0	n/a
Mar		99.46	-0.02			0	n/a
Jun		99.42	-0.01			0	n/a

■ THREE MONTH ECU FUTURES (LIFFE) Ecu1m points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	95.39	95.40	+0.01	95.41	95.38	672	10041
Mar	95.31	95.32	+0.02	95.32	95.30	189	6451
Jun	95.26	95.27	+0.01	95.27	95.26	93	5907
Sep	95.21	95.21	+0.01	95.21	95.20	20	6570

* LIFFE futures also traded on APT

■ EUROLIRA OPTIONS (LIFFE) L1000m points of 100%

Strike Price	CALLS Dec	CALLS Mar	CALLS Jun	PUTS Dec	PUTS Mar	PUTS Jun
9350	0.26	0.99	1.46	0.06	0.04	0.02
9375	0.12	0.76	1.23	0.15	0.06	0.04
9400	0.04	0.55	1.00	0.32	0.10	0.06

Est. vol. total, Calls 4751 Puts 1214. Previous day's open int., Calls 229815 Puts 116072

CROSS RATES AND DERIVATIVES

EXCHANGE CROSS RATES

Nov 4		BFr	DKr	FFr	DM	I£	L	Fl	NKr	Es	Pta	SKr	SFr	£	C$	$	Y	Ecu
Belgium	(BFr)	100	18.45	16.24	4.848	1.862	4752	5.464	19.77	494.7	409.2	21.17	3.957	1.671	3.955	2.817	343.3	2.455
Denmark	(DKr)	54.21	10	8.803	2.628	1.010	2576	2.962	10.72	268.2	221.9	11.48	2.146	0.906	2.144	1.527	186.1	1.331
France	(FFr)	61.58	11.36	10	2.986	1.147	2926	3.365	12.18	304.7	252.0	13.04	2.437	1.029	2.436	1.735	211.4	1.512
Germany	(DM)	20.63	3.805	3.349	1	0.384	980.1	1.127	4.079	102.0	84.42	4.366	0.816	0.345	0.816	0.581	70.81	0.506
Ireland	(I£)	53.70	9.905	8.719	2.603	1	2551	2.934	10.62	265.7	219.8	11.37	2.125	0.897	2.124	1.513	184.3	1.318
Italy	(L)	2.105	0.388	0.342	0.102	0.039	100	0.115	0.416	10.41	8.613	0.445	0.083	0.035	0.083	0.059	7.224	0.052
Netherlands	(Fl)	18.30	3.376	2.972	0.887	0.341	869.6	1	3.619	90.54	74.90	3.874	0.724	0.306	0.724	0.516	62.82	0.449
Norway	(NKr)	50.57	9.328	8.212	2.452	0.942	2403	2.763	10	250.2	207.0	10.71	2.001	0.845	2.000	1.425	173.6	1.242
Portugal	(Es)	20.21	3.728	3.282	0.980	0.376	960.5	1.104	3.997	100	82.72	4.279	0.800	0.338	0.799	0.569	69.39	0.496
Spain	(Pta)	24.44	4.507	3.968	1.185	0.455	1161	1.335	4.832	120.9	100	5.172	0.967	0.408	0.966	0.688	83.88	0.600
Sweden	(SKr)	47.24	8.714	7.671	2.290	0.880	2245	2.581	9.341	233.7	193.3	10	1.870	0.789	1.869	1.331	162.2	1.160
Switzerland	(SFr)	25.27	4.661	4.103	1.225	0.471	1201	1.381	4.997	125.0	103.4	5.349	1	0.422	0.999	0.712	86.74	0.620
UK	(£)	59.84	11.04	9.716	2.901	1.114	2843	3.270	11.83	296.0	244.9	12.67	2.368	1	2.367	1.686	205.4	1.469
Canada	(C$)	25.28	4.664	4.105	1.226	0.471	1201	1.381	4.999	125.1	103.5	5.352	1.001	0.423	1	0.712	86.79	0.621
USA	($)	35.50	6.548	5.764	1.721	0.661	1687	1.940	7.020	175.6	145.3	7.515	1.405	0.593	1.404	1	121.9	0.872
Japan	(Y)	29.13	5.373	4.730	1.412	0.543	1384	1.592	5.760	144.1	119.2	6.167	1.153	0.487	1.152	0.821	100	0.715
Ecu	-	40.73	7.513	6.614	1.975	0.759	1935	2.226	8.054	201.5	166.7	8.621	1.612	0.681	1.611	1.147	139.8	1

Danish Kroner, French Franc, Norwegian Kroner, and Swedish Kronor per 10; Belgian Franc, Yen, Escudo, Lira and Peseta per 100.

■ D-MARK FUTURES (IMM) DM 125,000 per DM

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	0.5778	0.5812	+0.0040	0.5833	0.5809	18,842	62,119
Mar	0.5852	0.5844	+0.0044	0.5857	0.5844	116	2,782
Jun	0.5890	0.5890	+0.0065	0.5890	0.5890	1	2,854

■ JAPANESE YEN FUTURES (IMM) Yen 12.5m per Yen 100

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	0.8290	0.8262	–0.0016	0.8297	0.8254	20,477	104,782
Mar	0.8377	0.8383	–0.0006	0.8383	0.8377	72	1,124
Jun	–	0.8530	–	–	0.8489	50	232

■ SWISS FRANC FUTURES (IMM) SFr 125,000 per SFr

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	0.7112	0.7168	+0.0056	0.7172	0.7144	14,427	47,388
Mar	0.7223	0.7231	+0.0055	0.7233	0.7221	78	2,561
Jun	–	0.7285	+0.0044	0.7295	–	1	285

■ STERLING FUTURES (IMM) £62,500 per £

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	1.6736	1.6774	+0.0042	1.6812	1.6770	3,907	48,822
Mar	1.6698	1.6720	+0.0046	1.6746	1.6690	48	482
Jun	1.6680	1.6660	+0.0054	1.6680	1.6580	4	74

UK INTEREST RATES

LONDON MONEY RATES

Nov 4	Over-night	7 days notice	One month	Three months	Six months	One year
Interbank Sterling	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Sterling CDs	-	-	[illegible]	[illegible]	[illegible]	[illegible]
Treasury Bills	-	-	[illegible]	[illegible]	-	-
Bank Bills	-	-	[illegible]	[illegible]	[illegible]	-
Local authority deps.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Discount Market deps	[illegible]	[illegible]	-	-	-	-

UK clearing bank base lending rate 7 per cent from Aug 7, 1997

	Up to 1 month	1-3 month	3-6 months	6-9 months	9-12 months
Certs of Tax dep. (£100,000)	[illegible]	[illegible]	5	5	[illegible]

Certs of Tax dep. under £100,000 is [illegible]pc. Deposits withdrawn for cash [illegible]pc. Ave. tender rate of discount on Oct 31, [illegible]pc. ECGD fixed rate Stlg. Export Finance. Make up day Oct 31, 1997. Agreed rate for period Nov 26, 1997 to Dec 25, 1997, Scheme III [illegible]pc. Reference rate for period Oct 1, 1997 to Oct 31, 1997, Schemes IV & V 7.544pc. Finance House Base Rate [illegible]pc from Nov 1, 1997

■ THREE MONTH STERLING FUTURES (LIFFE) £500,000 points of 100%

	Open	Sett price	Change	High	Low	Est. vol	Open int.
Dec	92.63	92.61	-0.02	92.64	92.60	7641	134759
Mar	92.59	92.56	-0.02	92.59	92.55	12148	117951
Jun	92.63	92.59	-0.03	92.62	92.58	7432	79113
Sep	92.66	92.66	-0.03	92.70	92.65	4357	67872
Dec	92.83	92.81	-0.02	92.81	92.77	3151	64804

Also traded on APT. All Open interest figs. are for previous day.

■ SHORT STERLING OPTIONS (LIFFE) £500,000 points of 100%

Strike Price	CALLS Dec	CALLS Mar	CALLS Jun	PUTS Dec	PUTS Mar	PUTS Jun
9250	0.15	0.19	0.29	0.04	0.13	0.20
9275	0.03	0.07	0.15	0.17	0.26	0.31
9300	0	0.02	0.07	0.39	0.46	0.48

Est. vol. total, Calls 2617 Puts 3975. Previous day's open int., Calls 219014 Puts 226228

EMS EUROPEAN CURRENCY UNIT RATES

Nov 4	Ecu cen. rates	Rate against Ecu	Change on day	% +/- from cen. rate	% spread v weakest	Div. ind.
Ireland	0.798709	0.759017	+0.000449	-4.97	7.74	33
Finland	5.85424	5.82475	+0.00289	-0.50	1.17	-8
Italy	1906.48	1931.90	+0.1	1.33	1.04	-10
Spain	163.826	165.443	-0.177	0.99	1.39	[illegible]
Portugal	197.398	201.115	-0.138	1.88	0.50	-13
Denmark	7.34555	7.50144	-0.00616	2.12	0.26	-15
France	6.45863	6.61270	-0.00725	2.22	0.17	-19
Germany	1.92573	1.97095	-0.00182	2.35	0.04	-23
Belgium	39.7191	40.6543	-0.0391	2.35	0.03	-16
Austria	13.5485	13.8723	-0.0122	2.39	0.00	-17
Netherlands	2.16979	2.22157	-0.00218	2.39	0.00	-16
NON ERM MEMBERS						
Greece	295.269	309.599	-0.23	4.85	-2.35	-
UK	0.793103	0.680650	+0.000661	-14.19	19.32	-

Ecu central rates set by the European Commission. Currencies are in descending relative strength. Percentage changes are for Ecu; a positive change denotes a weak currency. Divergence shows the ratio between two spreads: the percentage difference between the actual market and Ecu central rates for a currency, and the maximum permitted percentage deviation of the currency's market rate from its Ecu central rate. 17/9/92 Sterling suspended from ERM. Adjustment calculated by the Financial Times.

■ PHILADELPHIA SE £/$ OPTIONS £31,250 (cents per pound)

Strike Price	CALLS Nov	CALLS Dec	CALLS Jan	PUTS Nov	PUTS Dec	PUTS Jan
1.660	2.14	2.83	3.46	0.60	1.52	2.40
1.670	1.49	2.31	2.94	0.95	1.96	2.81
1.680	0.98	1.82	2.51	1.46	2.51	3.36

Previous day's vol., Calls n/a Puts n/a. Prev. day's open int., Calls n/a Puts n/a

■ PHILADELPHIA SE DM/$ OPTIONS DM62,500 ($ per DM)

Strike Price	CALLS Nov	CALLS Dec	CALLS Jan	PUTS Nov	PUTS Dec	PUTS Jan
0.570	0.86	1.25	1.57	0.23	0.52	0.75
0.575	0.55	0.95	1.28	0.41	0.73	0.98
0.580	0.30	0.71	1.02	0.66	0.99	1.21

Previous day's vol., Calls n/a Puts n/a. Prev. day's open int., Calls n/a Puts n/a

■ THREE MONTH EURODOLLAR (IMM) $1m points of 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	94.24	94.23	+1.04	94.30	94.22	47,950	536,834
Mar	94.19	94.19	-	94.24	94.17	67,176	423,556
Jun	94.13	94.12	-0.12	94.18	94.11	56,079	342,323

■ US TREASURY BILL FUTURES (IMM) $1m per 100%

	Open	Latest	Change	High	Low	Est. vol	Open int.
Dec	95.01	95.00	-0.01	95.09	95.00	1,213	5,379
Mar	95.08	95.07	-	95.09	95.07	446	4,745
Jun	95.03	95.03	-	95.03	95.03	74	496

All Open interest figs. are for previous day

■ EUROMARK OPTIONS (LIFFE) DM1m points of 100%

Strike Price	CALLS Dec	CALLS Mar	CALLS Jun	PUTS Dec	PUTS Mar	PUTS Jun
9625	0.04	0.07	0.03	0.05	0.04	0.07	0.28
9650	0.01	0.03	0.04	0.27	0.26	0.51
9675	0	0	0	0.50	0.50	0.75
9700	0	0	0	0.75	1.00	1.00

Est. vol. total, Calls 3950 Puts 3205. Previous day's open int., Calls 367489 Puts 312427

■ EURO SWISS FRANC OPTIONS (LIFFE) SFr 1m points of 100%

Strike Price	CALLS Dec	CALLS Mar	CALLS Jun	PUTS Dec	PUTS Mar	PUTS Jun
9800	0.11	0.13	0.13	0.13	0.32	0.53
9825	0.03	0.05	0.08	0.30	0.48	0.71

Est. vol. total, Calls 0 Puts 0. Previous day's open int., Calls 3075 Puts 3269

BASE LENDING RATES

	%		%		%
Adam & Company	7.00	Exeter Trust Limited	8.00	●Singer & Friedlander	7.00
Allied Irish Bank (GB)	7.00	Financial & Gen Bank	8.00	●Smith & Williamson Secs	7.00
●Henry Ansbacher	7.00	●Robert Fleming & Co	7.00	Sun Banking Corp Ltd	7.00
Banco Bilbao Vizcaya	7.00	●Guinness Mahon	7.00	TSB	7.00
Bank of Cyprus	7.00	Habib Bank AG Zurich	7.00	United Bank of Kuwait	7.00
Bank of Ireland	7.00	●Hambros Bank	7.00	Unity Trust Bank Plc	7.00
Bank of India	7.00	Heritable & Gen Inv Bk	7.00	Whiteaway Laidlaw	7.00
Bank of Scotland	7.00	C. Hoare & Co	7.00	Yorkshire Bank	7.00
Barclays Bank	7.00	Hongkong & Shanghai	7.00		
Brit Bk of Mid East	7.00	Investec Bank (UK) Ltd	7.00	● Members of London Investment Banking Association	
●Brown Shipley & Co Ltd	7.00	Julian Hodge Bank	7.00	* In administration	
Citibank NA	7.00	●Leopold Joseph & Sons	7.00		
Clydesdale Bank	7.00	Lloyds Bank	7.00		
The Co-operative Bank	7.00	Midland Bank	7.00		
Coutts & Co	7.00	NatWestminster	7.00		
Cyprus Popular Bank	7.00	●Rea Brothers	7.00		
Duncan Lawrie	7.00	Royal Bk of Scotland	7.00		
		Scottish Widows Bank	7.00		

TENDER NOTICE
UK GOVERNMENT ECU TREASURY BILLS
For tender on 11 November 1997

1. The Bank of England announces the issue by Her Majesty's Treasury of ECU 1,000 million nominal of UK Government ECU Treasury Bills, for tender on a bid-yield basis on Tuesday, 11 November 1997. An additional ECU 50 million nominal of Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account.

2. The ECU 1,000 million of Bills to be issued by tender will be dated 13 November 1997 and will be in the following maturities:

ECU 200 million for maturity on 11 December 1997.
ECU 500 million for maturity on 12 February 1998.
ECU 300 million for maturity on 14 May 1998.

3. All tenders must be made on the printed application forms available on request from the Bank of England. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services, Threadneedle Street, London not later than 10.30 a.m., London time, on Tuesday, 11 November 1997. Payment for Bills allotted will be due on Thursday, 13 November 1997.

4. Each tender at each yield for each maturity must be made on a separate application form for a minimum of ECU 500,000 nominal. Tenders above this minimum must be in multiples of ECU 100,000 nominal.

5. Tenders must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days) rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount tendered for.

6. Notification will be despatched on the day of the tender to applicants whose tenders have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with ESO, Euroclear or CEDEL, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 13 November 1997 provided cleared funds have been credited to the Bank of England's ECU Treasury Bills Account No. 59005516 with Lloyds Bank Plc, Bank Relations, St George's House, PO Box 787, 6-8 Eastcheap, London EC3M 1LL. Definitive Bills will be available in amounts of ECU 10,000, ECU 50,000, ECU 100,000, ECU 500,000, ECU 1,000,000, ECU 5,000,000 and ECU 10,000,000 nominal.

7. Her Majesty's Treasury reserves the right to reject any or part of any tender.

8. The arrangements for the tender are set out in more detail in the Information Memorandum on the UK Government ECU Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 28 March 1989, and in supplements to the Information Memorandum. All tenders will be subject to the provisions of the Information Memorandum (as supplemented) and to the provisions of this notice.

9. The ECU 50 million of Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 14 May 1998. These Bills may be made available through sale and repurchase transactions to the market makers listed in the Information Memorandum (as supplemented) in order to facilitate settlement.

10. Copies of the Information Memorandum (and supplements to it) may be obtained at the Bank of England. UK Government ECU Treasury Bills are issued under the Treasury Bills Act 1877, the National Loans Act 1968 and the Treasury Bills Regulations 1968 as amended.

Bank of England
4 November 1997

COMMODITIES AND AGRICULTURE

EIU sees volatile period for zinc

By Gary Mead

Strong global demand coupled with a big supply deficit in the run-up to 2000 will ensure price volatility for zinc, according to a report from the Economist Intelligence Unit.

The final quarter's report on industrial raw materials, however, says that prices for other base metals are likely to stabilise and even fall over the same period.

Growth in western consumption of zinc in 1997 is forecast to be about 4 per cent up on 1996. While zinc consumption growth rates will dip in 1998, by 1999 "refined zinc demand will be about 850,000 tonnes higher than it was in 1994, implying average annual growth of almost 3 per cent over the five-year period". Simultaneously, decline in global stocks will total 1.1m tonnes.

World aluminium consumption will have grown by 4.6 per cent in 1997, slowing to 3.2 per cent in 1998 and 2.1 per cent in 1999. Now at 21.6m tonnes, world production of aluminium is set to increase by 4.6 per cent in 1998 and by 2.7 per cent in 1999, as idle plants re-start production and fresh smelters come on-stream, taking advantage of currently abnormally low stocks, now down to about 50 days' consumption against 78 days in 1994.

The Chinese Strategic Reserve will have a significant impact on the outlook for copper; the EIU says "buying by the SRB confused the market" in 1997, and that the SRB will act as a buffer stock operator to "keep prices from falling below 90 cents a pound, in order to protect its high-cost domestic producers and prevent import dependence".

While the physical market in nickel has been tight in 1997, this will ease in 1998, because of rising output from new mines. In spite of a projected recovery in Russian demand – lowering exports to the west – this higher global output will ensure a growing surplus into 1999.

The EIU adopts a bearish outlook for world crude oil, lowering its forecast of global consumption growth to 2.3 per cent in 1997, with 60 per cent of that increase attributed to non-OECD countries. It predicts "the market will be well supplied in 1998 and 1999" and says that total OECD industry stocks were some 2.43bn barrels at the end of July, "over 100m barrels higher than in 1995".

It adds: "Global supply, led by Iraq's return to the oil market and by further growth in non-Opec production, will run ahead of demand ... in 1999 the market will continue in surplus, pushing prices lower."

CFTC turns focus on agricultural options

Deregulation may be coming to the US farm sector, but not without a few fights.

This week, the Commodity Futures Trading Commission, the futures industry regulator, has unveiled proposals which would permit farmers, processors, elevator operators and the like to buy or sell customised options on many agricultural commodities, without having to go through one of the official futures exchanges.

For example a farmer – enthused by the price of wheat but wary of the weather outlook – could enter an option agreement with his local grain elevator. In exchange for paying a premium to the elevator operator, this could give him the right, but not the obligation, to deliver grain at a negotiated price at a specified future date.

Supporters say that approval for such instruments would simply put the farm sector on a par with other commodity-based industries. Metal producers and energy operators have used trade options for years, notes the Washington-based National Grain and Feed Association.

"Agriculture is the only industry for which options like these are not allowed. We don't believe it is somehow less capable," the association comments.

The change – which the CFTC is proposing be tested in a three-year "pilot programme" – would also be in the spirit of the increasingly deregulated environment in the US agricultural sector. The 1996 farm law (usually tagged the "freedom to farm act") is progressively doing away with the federal government's most expensive subsidy programmes, and giving farmers flexibility over what they produce.

Advocates of trade options claim that such tools are necessary if more entrepreneurial farmers are to adequately manage their risks. "It is imperative that the CFTC act as soon as possible ... at least in time for farmers to manage the price and production risk of the 1998 crop, the third to be produced under the new farm law," says the NGFA.

But not everyone is enthusiastic. The use of customised agricultural options was banned in 1936 because of fraud and other abuses. In the mid-1990s the industry also ran into problems with "hedge-to-arrive" contracts. Developed in the mid-1990s, these were essentially private forward contracts which required physical delivery at a set price, but with the date variable. When grain prices surged, grain elevators – who had sold futures to offset the inherent risk – were left facing large losses. The legality of such contracts was questioned, and losses put in hundreds of millions of dollars.

Moreover, the futures exchanges are hardly delighted at the prospect of a further slice of business coming up for grabs.

The Chicago Board of Trade emphasises that it does not oppose "ag-trade" options per se. But it stresses that changes to the current restrictions should "contain all the appropriate safeguards", including measures to ensure price transparency, strict clearing arrangements, and "proven self-regulation".

Out of step: trade options are allowed in other industries

The CFTC proposals throw a few sops in the exchanges' direction. The regulator says it will remove any prohibition on the offer and sale of agricultural options, for physical delivery, on designated exchanges – allowing them to devise their own products.

Out in the farm sector itself, opinion seems divided on whether such products would be a useful addition to the array of risk management tools, or an invitation to take potentially costly punts.

Even the NGFA concedes that views differ. With the CFTC proposing a fairly brief comment period, some debate can be expected in coming weeks. But having come so far, the chance of a revision to the 61-year-old ban on agricultural options before 1997 ends is looking high.

Nikki Tait

Iraq fears continue to depress oil prices

MARKETS REPORT

By Robert Corzine and Gary Mead

Crude oil prices were flat to lower yesterday as traders awaited more definitive news about the latest confrontation between Iraq and the United Nations.

The price of the bellwether Brent Blend for December delivery was quoted at $19.88 a barrel in late trading on London's International Petroleum Exchange, 7 cents down on Monday's close.

Although Iraqi oil represents a fraction of total world oil demand, any interruption in its exports of 600,000 barrels a day or so could have a big influence on prices in the run up to the northern winter.

Meanwhile British Petroleum yesterday predicted continuing volatility in oil prices. It also said there were no signs so far that currency turmoil in Asia and stock market uncertainty around the world was having a "material" impact on global oil demand.

The recent slide on coffee futures on the London International Financial Futures Exchange halted yesterday, but exceptionally thin trading volume of just 2,713 lots disguised the otherwise jittery mood of the exchange. The January contract hit $1,500 but failed to cling on to it, closing $29 up at $1,499 a tonne. Cocoa fell further, the March future closing at £1,045 a tonne, £11 lower, on continuing news from the Ivory Coast of good harvests.

On the London Metal Exchange most base metals ended weaker, though tin was actively traded, ranging more than $100 through the day. Three months tin closed $75 higher, at $5,615 a tonne.

COMMODITIES NEWS DIGEST

Vietnam upbeat on rice harvest

Two of Vietnam's most important soft commodities – coffee and rice – have eluded the worst effects of typhoon Linda, which at the last count had caused the deaths of 132 people and the disappearance of as many as 4,000 fishermen off its south coast.

Vietnam is the world's second biggest exporter of rice with an estimated 2.56m acres of paddy fields in the crucial Mekong Delta. The summer-autumn crop, which recently completed harvesting, produced 6m tonnes of unmilled rice, 0.5m tonnes less than in 1996, potentially jeopardising earlier hopes of exporting 3.7m tonnes this year.

Paddy fields planted with the more important, recently-planted winter-spring crop (due to be harvested in February-March 1998), have been flooded. But officials say it is sufficiently early in the season that replanting can be carried out and the final crop may still meet earlier predictions of being 800,000 tonnes bigger than this year's.

Coffee plantations have also apparently escaped serious damage, the typhoon having by-passed the central highlands, responsible for some 60 per cent of the country's coffee production. *Gary Mead*

■ WHEAT

Uzbekistan ignores Gafta ruling

The government of Uzbekistan has failed to pay nearly $11m it owes to Romak, a Geneva-based international grain trading company, for wheat delivered last year, despite an arbitration award in Romak's favour by the Grain and Feed Trade Association (Gafta) in London.

Representations by Credit Suisse, which provided the export finance, and Swiss diplomats in Tashkent have met with no success. The Uzbek authorities have refused all public comment.

Romak said yesterday that Uzbekistan was flagrantly ignoring its international commitments by refusing to honour the arbitration award, which it is bound to do as a signatory of the 1958 New York convention on international arbitration awards.

Romak's experience was a warning to others, the company said, noting that an international conference on Doing Business in Uzbekistan is being held tomorrow and Friday in London with top officials from the Uzbek government.

The unpaid bill relates to Romak's delivery of about 40,600 tonnes of Kazakh wheat in summer 1996 to a state-owned trading company, Uzdon. The shipment, necessitated by the failure to deliver of a now-bankrupt Uzbek company, Odil, was guaranteed by the Uzbek government.

Uzdon subsequently claimed that Romak's contract was not with Uzdon but with Odil, which foundered after receiving an $8.1m loan from the Uzbek National Bank to purchase wheat that was never delivered.

Rejecting this argument, Gafta in August awarded Romak $10.8m in settlement of the contract plus interest for late payment. *Frances Williams, Geneva*

Comments and press releases about commodities coverage can be sent by e-mail to international.companies@ft.com

COMMODITIES PRICES

BASE METALS

LONDON METAL EXCHANGE

(Prices from Amalgamated Metal Trading)

■ ALUMINIUM, 99.7 PURITY ($ per tonne)

	Cash	3 mths
Close	1592-93	1620-21
Previous	1598.5-9.5	1628-8.5
High/low		1627/1611
AM Official	1584-85	1610.5-11.5
Kerb close		1626-27
Open int.	258,489	
Total daily turnover	101,562	

■ ALUMINIUM ALLOY ($ per tonne)

	Cash	3 mths
Close	1482-87	1482-85
Previous	1490-95	1482-5
High/low		1480/1475
AM Official	1470-75	1478-9
Kerb close		1480-90
Open int.	6,055	
Total daily turnover	1,276	

■ LEAD ($ per tonne)

	Cash	3 mths
Close	595-96	607-08
Previous	594.5-5.5	606.5-7.0
High/low		610/605
AM Official	592-93	606-7
Kerb close		607-8
Open int.	30,258	
Total daily turnover	7,500	

■ NICKEL ($ per tonne)

	Cash	3 mths
Close	6090-100	6175-80
Previous	6120-30	6205-10
High/low		6220/6140
AM Official	6070-75	6160-65
Kerb close		6185-90
Open int.	60,056	
Total daily turnover	21,288	

■ TIN ($ per tonne)

	Cash	3 mths
Close	5595-605	5595-605
Previous	5550-55	5545-50
High/low		5620/5540
AM Official	5590-600	5590-95
Kerb close		5600-10
Open int.	15,760	
Total daily turnover	4,186	

■ ZINC, special high grade ($ per tonne)

	Cash	3 mths
Close	1231.5-32.5	1252-53
Previous	1239-40	1259.5-60.0
High/low		1263/1240
AM Official	1226-26.5	1247-48
Kerb close		1241-2
Open int.	81,192	
Total daily turnover	20,054	

■ COPPER, grade A ($ per tonne)

	Cash	3 mths
Close	1970-71	1982-83
Previous	1995-6	2002-3
High/low	1970/1968	1995/1975
AM Official	1968-68.5	1981-82
Kerb close		1984-5
Open int.	157,138	
Total daily turnover	62,430	

■ LME AM Official £/$ rate: 1.6827
LME Closing £/$ rate: 1.6840

Spot: 1.6835 3 mths: 1.6772 6 mths: 1.6698 9 mths: 1.6640

■ HIGH GRADE COPPER (COMEX)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	90.60	-0.10	91.00	90.00	351	3,946
Dec	90.30	-0.15	90.90	89.50	3,593	30,795
Jan	90.55	-0.10	90.70	90.00	41	1,287
Feb	90.30	-0.15	90.50	90.20	19	1,358
Mar	90.40	-0.05	90.70	90.00	1,446	8,711
Apr	90.40	-0.25	90.90	90.40	208	1,243
Total					6,206	63,991

PRECIOUS METALS

■ LONDON BULLION MARKET

(Prices supplied by N M Rothschild)

Gold(Troy oz)	$ price	£ equiv	SFr equiv
Close	315.40-315.80		
Opening	313.40-313.70		
Morning fix	313.30	186.266	440.187
Afternoon fix	315.35	187.407	442.594
Day's High	315.90-316.20		
Day's Low	312.05-312.35		
Previous close	314.10-314.60		

Loco Ldn Mean Gold Lending Rates (Vs US$)

1 month ....2.74 6 months 3.25
2 months ....2.79 12 months 3.51
3 months 2.84

Silver Fix	p/troy oz.	US cts equiv.
Spot	287.85	484.25
3 months	291.05	487.70
6 months	294.05	490.95
1 year	300.60	498.25

Gold Coins	$ price	£ equiv.
Krugerrand	313-316	186-187
Maple Leaf	-	-
New Sovereign	73-76	43-45

Precious Metals continued

■ GOLD COMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	314.0	+0.4	-	-	-	-
Dec	314.8	-	316.9	313.1	29,330	111k
Feb	316.3	+0.5	318.4	315.0	2,438	30,400
Apr	318.2	+0.6	320.3	318.3	734	7,478
Jun	320.3	+0.7	322.5	320.5	41	11,228
Aug	322.4	+0.7	-	-	1	4,510
Total					32,688	216,814

■ PLATINUM NYMEX (50 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Jan	405.7	-0.8	407.5	405.0	862	11,284
Apr	401.7	-0.8	403.0	400.5	80	1,434
Jul	398.7	-0.8	399.0	399.0	11	42
Total					948	12,760

■ PALLADIUM NYMEX (100 Troy oz.; $/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	209.00	+0.40	210.00	208.50	223	3,068
Mar	205.50	-0.60	206.50	205.00	4	1,004
Jun	202.00	-0.60	-	-	-	111
Sep	199.00	-0.60	-	-	1	2
Total					227	4,185

■ SILVER COMEX (5,000 Troy oz.; Cents/troy oz.)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	482.8	+0.3	483.5	482.5	-	1
Dec	484.8	+0.3	489.0	481.0	17,559	59,188
Jan	486.6	+0.4	488.5	488.5	23	34
Mar	490.8	+0.5	495.0	489.0	2,558	20,408
May	493.7	+0.5	494.5	493.0	57	2,772
Jul	496.5	+0.5	498.0	498.0	291	3,782
Total					21,123	85,048

ENERGY

■ CRUDE OIL NYMEX (1,000 barrels, $/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Dec	20.84	-0.12	21.03	20.76	37,274	92,948
Jan	21.00	-0.09	21.14	20.92	16,953	55,352
Feb	20.96	-0.08	21.05	20.90	4,877	35,098
Mar	20.85	-0.08	20.96	20.83	1,759	21,522
Apr	20.75	-0.08	20.84	20.78	1,130	15,344
May	20.70	-0.04	20.74	20.70	811	17,098
Total					85,194	391,933

■ CRUDE OIL IPE ($/barrel)

	Latest price	Day's change	High	Low	Vol	Open int
Dec	19.81	-0.14	20.04	19.75	11,049	58,981
Jan	19.87	-0.07	20.06	19.80	5,792	53,202
Feb	19.82	-0.05	19.95	19.79	767	19,340
Mar	19.70	-0.03	19.80	19.70	571	6,167
Apr	19.55	-0.04	19.65	19.55	187	5,436
May	-	-	-	-	-	5,233
Total					19,487	165,862

■ HEATING OIL NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Nov	-	-	-	-	204	3,232
Dec	58.60	-0.18	59.10	58.20	14,622	56,967
Jan	59.40	-0.21	59.70	59.15	3,629	24,613
Feb	59.60	-0.21	59.90	59.40	1,555	13,293
Mar	58.70	-0.31	59.00	58.55	306	9,186
Apr	57.10	-0.21	57.35	56.90	181	5,488
Total					20,811	126,640

■ GAS OIL IPE ($/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	181.00	-0.75	182.50	180.50	5,378	25,308
Dec	181.75	-1.00	183.25	181.50	4,591	23,539
Jan	182.50	-0.75	183.75	182.25	1,913	14,923
Feb	182.25	-0.50	183.25	182.75	682	8,703
Mar	180.00	-0.25	180.50	180.50	25	6,019
Apr	177.50	-	177.75	177.75	25	3,172
Total					12,208	88,080

■ NATURAL GAS IPE (1,000 therms; pence per therm)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	15.350	-0.300	15.450	15.250	110	1,305
Total					285	18,900

■ NATURAL GAS NYMEX (10,000 mmBtu; $/mmBtu)

	Latest price	Day's change	High	Low	Vol	Open int
Dec	3.445	+0.074	3.480	3.350	26,484	59,095
Jan	3.380	+0.062	3.420	3.290	8,258	32,512
Feb	2.980	+0.050	3.000	2.905	4,499	22,846
Mar	2.630	+0.035	2.649	2.590	1,491	17,027
Apr	2.320	+0.015	2.335	2.300	812	10,200
May	2.240	+0.017	2.250	2.220	257	8,325
Total					44,357	234,264

■ UNLEADED GASOLINE
NYMEX (42,000 US galls.; c/US galls.)

	Latest price	Day's change	High	Low	Vol	Open int
Nov	-	-	-	-	45	781
Dec	59.45	-0.35	59.95	59.10	9,259	35,292
Jan	59.55	-0.23	60.00	59.30	2,907	19,117
Feb	59.90	-0.18	59.95	59.75	713	8,840
Mar	60.35	-	60.60	60.35	342	5,393
Apr	64.85	-	63.00	63.00	134	5,786
Total					13,635	89,889

GRAINS AND OIL SEEDS

■ WHEAT LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	82.60	-0.40	83.30	82.60	78	287
Jan	84.75	-0.45	85.50	84.75	134	3,285
Mar	86.75	-0.50	87.50	86.75	202	3,202
May	88.75	-0.50	89.10	89.00	190	2,233
Jul	90.75	-0.50	-	-	-	195
Total					606	9,216

■ WHEAT CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	359.25	-4.00	364.50	359.00	8,855	52,113
Mar	374.00	-3.75	380.25	373.75	2,688	27,261
May	382.00	-3.50	385.50	382.00	155	6,438
Jul	384.75	-3.00	388.00	384.25	858	15,233
Sep	389.50	-3.00	392.50	391.50	70	146
Dec	400.00	-2.50	402.00	400.00	86	2,965
Total					12,847	104,184

■ MAIZE CBT (5,000 bu min; cents/56lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	280.25	-5.00	286.00	280.00	50,812	190,218
Mar	290.25	-4.75	295.00	290.00	15,016	104,424
May	296.00	-4.50	301.00	295.75	3,529	30,466
Jul	300.25	-4.75	305.50	300.00	4,771	42,069
Sep	293.25	-1.00	295.50	292.75	193	3,580
Dec	292.00	-1.25	294.50	291.50	2,846	26,120
Total					77,244	398,347

■ BARLEY LIFFE (100 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	76.90	-	76.90	76.90	3	73
Jan	79.50	-	-	-	-	1,290
Mar	82.00	-	-	-	-	509
May	83.75	-	-	-	-	23
Sep	82.00	-	-	-	-	6
Total					3	1,981

■ SOYABEANS CBT (5,000bu min; cents/60lb bushel)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	711.25	-5.75	725.50	711.00	15,040	19,574
Jan	716.00	-5.75	730.00	715.00	45,420	68,751
Mar	721.50	-6.00	735.00	721.00	5,719	23,753
May	727.25	-5.00	740.00	726.50	1,710	16,409
Jul	732.75	-4.50	745.00	732.00	3,924	13,818
Aug	730.00	-	736.00	729.50	44	638
Total					73,123	149,226

■ SOYABEAN OIL CBT (60,000lbs; cents/lb)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	25.42	-0.21	25.82	25.38	9,444	50,563
Jan	25.64	-0.18	25.99	25.58	4,243	27,387
Mar	25.87	-0.15	26.22	25.82	3,039	15,252
May	25.98	-0.16	26.25	25.90	1,551	9,389
Jul	26.05	-0.12	26.30	26.12	444	8,580
Aug	25.87	+0.02	25.95	25.95	74	820
Total					18,898	113,429

■ SOYABEAN MEAL CBT (100 tons; $/ton)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	232.8	-0.3	236.5	231.2	12,448	41,149
Jan	227.9	-0.5	231.8	227.4	4,520	22,746
Mar	223.8	-0.8	228.0	223.0	3,544	20,418
May	221.7	-1.3	225.3	221.5	1,672	17,503
Jul	223.0	-0.8	225.5	222.5	578	12,298
Aug	223.0	-	226.5	223.5	21	2,697
Total					22,812	122,486

■ POTATOES LIFFE (20 tonnes; £ per tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	40.0	+10.0	-	-	-	3
Mar	82.0	+5.0	-	-	-	-
Apr	118.5	+2.0	118.5	117.0	47	1,166
May	130.0	+2.5	-	-	-	24
Jun	140.0	+2.5	-	-	-	-
Total					50	1,193

■ FREIGHT (BIFFEX) LIFFE ($10/index point)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	1288	-22	1305	1288	65	719
Dec	1318	-22	1324	1315	15	171
Jan	1350	-20	1365	1350	37	666
Apr	1385	-20	-	-	-	352
Jul	1250	-5	1250	1250	10	65
Total					127	1,973

	Close	Prev
BFI	1308	1314

PULP AND PAPER

■ PULPEX OMLX ($6; 24 air dry tons)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	563.00	-2.00	564.00	563.00	10	234
Mar	581.00	-4.00	582.00	581.00	20	394
Total					30	628

FUTURES DATA
All futures data supplied by CMS.

Minor metals from Metal Bulletin
European free market, $ per lb in warehouse, unless otherwise stated (last week's in brackets, where changed). **Antimony:** 99.65%, $ per tonne, 1,780-1,880 (1,820-1,900). **Bismuth:** min. 99.99%, tonne lots 3.25-3.40. **Cadmium:** min. 99.95%, cents a pound, 35.00-40.00. **Cobalt:** MB free market, min. 99.8%, 23.70-24.70 (23.00-23.50); *min. 99.3%, 18.60-19.00 (18.00-18.75).* **Mercury:** min. 99.99%, $ per 76 lb flask, 140-150. **Molybdenum:** 3.50-3.70 (3.70-3.80). **Selenium:** min 99.5%, 2.00-3.00. **Tungsten ore:** standard min. 65%, $ per tonne unit WO_3, CIF, 40-45. **Vanadium:** min. 98% CIF, 4.18-4.25. **Uranium:** 9.50.

SOFTS

■ COCOA LIFFE (10 tonnes; £/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	1026	-4	1028	1012	1,258	44,436
Mar	1051	-5	1053	1038	5,193	54,321
May	1070	-5	1074	1058	964	23,380
Jul	1087	-4	1088	1076	305	9,564
Sep	1104	-4	1106	1093	681	16,720
Dec	1118	-3	1120	1107	1,268	21,089
Total					11,118	195,182

■ COCOA CSCE (10 tonnes; $/tonnes)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	1589	+11	1594	1563	8,463	24,993
Mar	1630	+12	1635	1604	7,141	34,804
May	1655	+12	1658	1630	1,935	13,883
Jul	1676	+12	1679	1653	28	3,962
Sep	1698	+14	1700	1700	15	4,828
Dec	1718	+16	-	-	39	8,898
Total					17,851	102,993

■ COCOA (ICCO) (SDR's/tonne)

Nov 3	Price	Prev. day
Daily	1222.58	1233.15

■ COFFEE LIFFE (5 tonnes; $/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	1470	+25	1470	1445	327	2,632
Jan	1499	+29	1500	1466	1,821	25,592
Mar	1508	+24	1508	1480	950	8,673
May	1513	+23	1494	1487	71	1,974
Jul	1520	+22	1520	1498	22	661
Sep	1530	+22	-	-	-	382
Total					3,193	39,924

■ COFFEE 'C' CSCE (37,500lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	144.30	+0.20	144.60	142.50	6,041	11,513
Mar	137.85	+0.90	138.25	136.30	2,011	8,403
May	135.35	+1.30	135.50	133.50	205	2,921
Jul	132.25	+0.75	132.50	130.75	199	1,922
Sep	130.15	+0.35	130.25	129.00	72	1,019
Dec	127.50	+0.45	128.00	126.75	95	798
Total					8,625	26,632

■ COFFEE (ICO) (US cents/pound)

Nov 3		Prev. day
Comp. daily	110.93	112.57
15 day average	117.00	118.03

■ WHITE SUGAR LIFFE (50 tonnes; $/tonne)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	311.1	-2.7	314.2	311.0	1,423	10,806
Mar	316.2	-2.3	319.0	316.0	1,185	18,379
May	319.2	-1.6	319.5	318.9	357	3,169
Aug	321.6	-1.6	322.0	321.0	25	2,465
Oct	316.7	-2.2	316.6	316.5	300	3,467
Dec	315.5	-0.8	-	-	-	140
Total					3,274	38,549

■ SUGAR '11' CSCE (112,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Mar	12.29	-0.14	12.43	12.26	16,680	119k
May	12.20	-0.11	12.30	12.17	4,327	28,479
Jul	11.90	-0.14	12.03	11.90	2,550	20,533
Oct	11.78	-0.11	11.88	11.77	1,231	21,897
Mar	11.63	-0.10	11.71	11.66	13	5,682
May	11.58	-0.10	11.67	11.65	50	613
Total					24,841	197,082

■ COTTON NYCE (50,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Dec	72.38	-0.39	72.70	72.10	8,121	45,911
Mar	73.58	-0.25	73.75	73.32	1,957	18,018
May	74.40	-0.10	74.50	74.05	551	10,280
Jul	74.86	-0.14	74.95	74.70	931	10,097
Oct	75.50	-0.10	75.55	75.50	49	823
Dec	75.80	-0.19	76.00	75.75	557	10,668
Total					12,161	98,138

■ ORANGE JUICE NYCE (15,000lbs; cents/lbs)

	Sett price	Day's change	High	Low	Vol	Open int
Nov	71.20	+2.30	71.50	68.50	847	1,759
Jan	74.75	+2.55	75.40	72.05	1,756	20,840
Mar	78.20	+2.65	78.80	75.50	601	11,765
May	81.45	+2.65	81.45	78.90	193	2,876
Jul	84.45	+2.65	-	-	9	1,169
Sep	87.45	+2.65	-	-	43	755
Total					3,449	39,907

VOLUME DATA
Open interest and Volume data shown for contracts traded on COMEX, NYMEX, CBT, NYCE, CME, CSCE and IPE Crude Oil are one day in arrears. Volume & Open interest totals are for all traded months.

INDICES

■ Reuters (Base: 18/9/31 = 100)

Nov 4	Nov 3	month ago	year ago
1828.7	1821.7	1887.3	1853.1

■ CRB Futures (Base: 1967 = 100)

Nov 3	Oct 31	month ago	year ago
241.64	240.04	-	-

■ GSCI Spot (Base: 1970 = 100)

Nov 3	Oct 31	month ago	year ago
205.63	208.15	207.54	203.75

LME WAREHOUSE STOCKS (tonnes)

Aluminium	-2,375	to	739,275
Aluminium alloy	-260	to	47,540
Copper	-675	to	340,475
Lead	-325	to	115,900
Nickel	-174	to	66,486
Zinc	+700	to	456,700
Tin	-110	to	9,745

MEAT AND LIVESTOCK

■ LIVE CATTLE CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Dec	66.975	-0.150	67.300	66.750	4,840	38,797
Feb	68.900	+0.050	69.075	68.625	2,020	25,444
Apr	72.375	+0.050	72.550	72.100	564	14,457
Jun	69.850	+0.025	69.950	69.600	418	10,707
Aug	69.650	-0.075	69.900	69.650	50	3,607
Oct	71.700	-0.300	71.700	71.700	19	1,164
Total					7,911	94,176

■ LEAN HOGS CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Dec	62.125	+0.175	62.400	61.350	2,880	18,883
Feb	62.825	+0.350	62.950	61.900	2,096	9,550
Apr	59.275	+0.450	59.350	58.650	505	4,190
Jun	66.400	+0.025	66.700	65.900	309	2,972
Jul	64.550	-0.150	64.750	64.475	19	948
Aug	63.175	-0.325	63.600	62.850	14	233
Total					5,896	37,210

■ PORK BELLIES CME (40,000lbs; cents/lbs)

	Sett Price	Day's change	High	Low	Vol	Open int
Feb	64.725	-	64.600	63.500	1,138	6,043
Mar	63.975	-0.475	64.250	63.300	103	912
May	64.200	-0.125	64.600	63.650	2	295
Jul	65.600	-0.125	65.200	64.750	3	159
Aug	61.800	-0.450	-	62.250	-	10
Total					1,246	7,441

LONDON TRADED OPTIONS

Strike price $ tonne — Calls — — Puts —

■ ALUMINIUM (99.7%) LME	Dec	Mar	Dec	Mar
1600	44	82	29	46
1625	31	69	41	58
1650	21	57	56	71
■ COPPER (Grade A) LME	**Dec**	**Mar**	**Dec**	**Mar**
1950	73	107	36	73
2000	47	83	60	97
2050	28	63	91	127
■ COFFEE LIFFE	**Jan**	**Mar**	**Jan**	**Mar**
1400	181	130	-	31
1450	131	92	-	43
1500	81	63	-	64
■ COCOA LIFFE	**Dec**	**Mar**	**Dec**	**Mar**
1050	10	54	34	53
1075	5	45	54	69
1100	2	36	76	87
■ BRENT CRUDE IPE	**Dec**	**Jan**	**Dec**	**Jan**
1950	-	-	20	65
2000	26	-	39	88
2050	16	-	-	-

LONDON SPOT MARKETS

■ CRUDE OIL FOB (per barrel)

		+or-
Dubai	$18.95-9.00w	-0.195
Brent Blend (dated)	*$19.16-9.18*	*-0.280*
Brent Blend (Dec)	$19.83-9.85	-0.280
W.T.I.	$20.82-0.84w	-0.280

■ OIL PRODUCTS NWE prompt delivery CIF (tonne)

Premium Gasoline	$202-204	-2
Gas Oil	$183-185	-1.5
Heavy Fuel Oil	$102-104	
Naphtha	$196-197	-1
Jet fuel	$202-204	-1.5
Diesel	$192-194	-1.5

■ NATURAL GAS (Pence/therm)

Bacton (Dec)	15.40-15.50	-0.250

Petroleum Argus. Tel. London (0171) 359 8792

■ OTHER

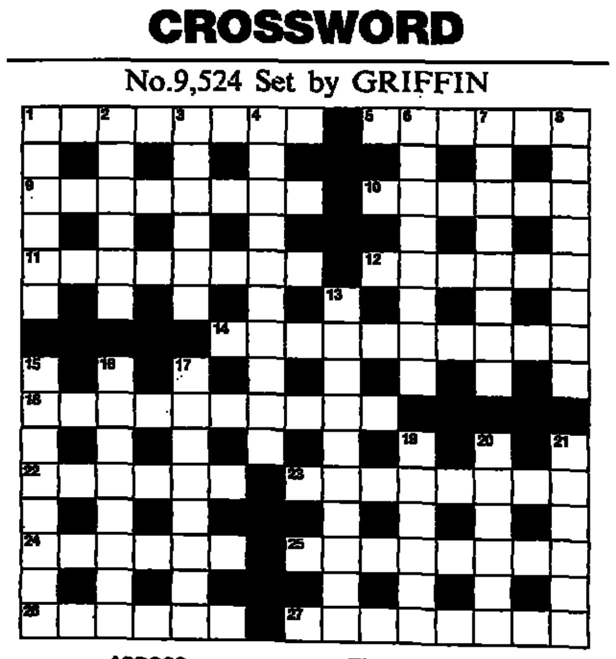
Gold (per troy oz)♣	$315.65	+1.30
Silver (per troy oz)♣	488.00c	+2.00
Platinum (per troy oz.)	$408.00	+1.00
Palladium (per troy oz.)	$209.00	
Copper	98.0c	
Lead (US prod.)	45.00c	
Tin (Kuala Lumpur)	18.41r	
Tin (New York)	259.5	
Cattle (live weight)	96.24p	-0.35*
Sheep (live weight)	97.87p	-4.50*
Pigs (live weight)†	78.55p	+0.06*
Lon. day sugar (raw)	$292.70	+0.20
Lon. day sugar (wte)	$308.50	-0.10
Barley (Eng. feed)	Unq	
Maize (US No3 Yellow)	£109.00	
Wheat (US Dark North)	Unq	
Rubber (Dec)♥	54.50p	
Rubber (Jan)♥	54.50p	
Rubber (KL RSS No1)	292.0z	-2.0
Coconut Oil (Phil)§	605.02.5z	+2.5
Palm Oil (Malay.)§	525.0z	
Copra (Phil)§	$410.0	
Soyabeans (US)	192.0	+7.0
Cotton Outlook'A' Index	77.45c	
Wooltops (64s Super)	408p	

£ per tonne unless otherwise stated. p pence/kg. c cents/lb. r ringgit/kg. m Malaysian cents/kg. y Sep/Oct. z Nov/Dec. w Dec. ♥London Physical. § CIF Rotterdam. ♣ Bullion market close. * Change on week. †Based on s/a head of pigs sold.

JOTTER PAD

CROSSWORD

No.9,524 Set by GRIFFIN



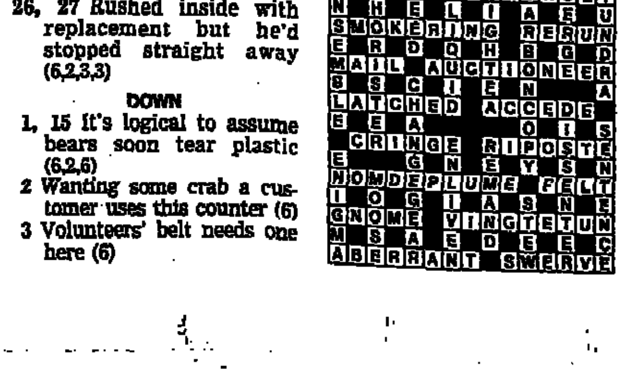
ACROSS

1, 5 First to slip off after it fires blanks (6,6)
9 Two articles on "The Mummy's Curse" . . . (8)
10 . . . . swear it's a female stiff (6)
11 Sceptical but prepared to go into the performance (8)
12 Musician I love left home after five (6)
14 Got rid of throng running inside fortress (10)
18 Appeared to have finished before being missed (10)
22 Grace enters when Richard is hiding (6)
23 Direct her to turn into South Street (8)
24 Studied starting price before broadcast (6)
25 Unaware I permit no interrupting (8)
26, 27 Rushed inside with replacement but he'd stopped straight away (6,2,3,3)

DOWN

1, 15 It's logical to assume bears soon tear plastic (6,2,6)
2 Wanting some crab a customer uses this counter (6)
3 Volunteers' belt needs one here (6)
4 There's no race to take motorway appointment (10)
6 Break finger in crash (8)
7 Twitter on about one being a very large number! (8)
8 Against introducing the French-made drink (8)
13 Capital could be open to change (10)
15 See 1 down
16 It shows you're unhappy rent has to fall (8)
17 Picket instructed to grab jam (8)
19 Clasp brother and ring companion (6)
20 Smear union leader found in bed with Jack (6)
21 Said to be completely satisfied with time inside (6)

Solution 9,523



صكنا من الاهل

هكذا من الاصل

am upbeat
e harvest

CROSSWORD

FT MANAGED FUNDS SERVICE

Offshore Funds

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OFFSHORE AND OVERSEAS

BERMUDA (FSA RECOGNISED)

Fidelity Currency Funds Ltd

Jupiter Asset Management (Bermuda) Ltd

BERMUDA (REGULATED)(**)

Butterfield Management Co Ltd

Integral Bond Arbitrage Fund Limited

Integral Management International Ltd

McKinley Offshore Management Ltd

Orbis Investment Management Ltd

Philip Smith & Co

GUERNSEY (FSA RECOGNISED)

Lazard Fund Managers (Channel Islands) Ltd

Lloyds Intl Money Market Fund Ltd

Rothschild Asset Management (CI) Ltd

GUERNSEY (REGULATED)(**)

Clerical Medical Investment Mngt (Guernsey) Limited

Commercial Union Capitus Int Mngt

Guinness Flight Fd Mngrs (Guernsey) Ltd

Lloyds Bank Fund Managers (Guernsey) Ltd

IRELAND (FSA RECOGNISED)

Bank of Cyprus Group

Dresdner Kleinwort Benson Int Mgt Services Ltd

Edinburgh Unit Trust Managers (Ireland) Ltd

The Fiduciary Trust Global Fund

IRELAND (REGULATED)(**)

Singer & Friedlander Inv Funds Ltd (c)

Lazard Investment Funds Ltd - Contd.

Dresdner Kleinwort Benson Int Mgt Srv - Contd.

Dragon Korea Fund Plc

Scottish Value Management (Ireland) Ltd (c)

INVESCO Fund Services (Ireland) Ltd

ISLE OF MAN (FSA RECOGNISED)

Allied Dunbar Intl Fund Mgrs (1000)F

Ashburton Global Funds Ltd (1200)

Old Mutual Intl Fd Managers (Isle of Man) Ltd

ISLE OF MAN (REGULATED)(**)

JERSEY (FSA RECOGNISED)

JERSEY (REGULATED)(**)

ABSA Offshore Select Fund Limited

Barclays Intl Funds

Fleming Group

Lloyds Private Banking (Jersey) Ltd

Lombard Odier (Jersey) Ltd

Royal Bank of Scotland Fund Managers (CI) Ltd

LUXEMBOURG (FSA RECOGNISED)

ABN AMRO Funds (a)

American Phoenix Investment Portfolios (a)

Offshore Funds and Insurances

FT MANAGED FUNDS SERVICE

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

BAII Asset Management Ltd

Bank Von Ernst & Cie AG

Banque Indosuez

Frostrummer I (a)

GT Global

Morgan Stanley Sicav - Contd.

Nikko Global Umbrella Fund

ACM Offshore Funds - Contd.

Credit Suisse Asset Mgmt Funds - Contd.

Daiwa Japan Small Equity Fd (a)

Dicam Worldwide Investment Fund

The Dragon Fund Sicav

Egypt Trust

Emerging Markets Brewery Fund SICAV

Merrill Lynch Asset Management - Contd.

Templeton Emerging Asia

Friends Provident International

OFFSHORE INSURANCES

LUXEMBOURG (REGULATED)

[illegible]

هكذا من الأصل

FT MANAGED FUNDS SERVICE

Offshore Insurances and Other Funds

● FT Cityline Unit Trust Prices are available over the telephone. Call the FT Cityline Help Desk on (+44 171) 873 4378 for more details.

OTHER OFFSHORE FUNDS

● MANAGED FUNDS NOTES

LONDON SHARE SERVICE

ALCOHOLIC BEVERAGES

[illegible]

BANKS, RETAIL

[illegible]

BREWERIES, PUBS & REST

[illegible]

BUILDING & CONSTRUCTION

[illegible]

BUILDING MATS. & MERCHANTS

[illegible]

CHEMICALS

[illegible]

CHEMICALS - Cont.

[illegible]

DISTRIBUTORS

[illegible]

DIVERSIFIED INDUSTRIALS

[illegible]

ELECTRICITY

[illegible]

ELECTRONIC & ELECTRICAL EQPT

[illegible]

ENGINEERING

[illegible]

ENGINEERING - Cont.

[illegible]

ENGINEERING, VEHICLES

[illegible]

ENGINEERING, VEHICLES - Cont.

[illegible]

EXTRACTIVE INDUSTRIES

[illegible]

EXTRACTIVE INDUSTRIES - Cont.

[illegible]

FOOD PRODUCERS

[illegible]

GAS DISTRIBUTION

[illegible]

HEALTH CARE

[illegible]

HEALTH CARE - Cont.

[illegible]

HOUSEHOLD GOODS

[illegible]

INSURANCE

[illegible]

INVESTMENT TRUSTS

[illegible]

INVESTMENT TRUSTS - Cont.

[illegible]

INV TRUSTS SPLIT CAPITAL

[illegible]

LONDON SHARE SERVICE

OTHER INVESTMENT TRUSTS

[illegible]

INVESTMENT COMPANIES

[illegible]

LEISURE & HOTELS

[illegible]

LIFE ASSURANCE

[illegible]

MEDIA

[illegible]

MEDIA - Cont.

[illegible]

OIL EXPLORATION & PRODUCTION

[illegible]

OIL, INTEGRATED

[illegible]

OTHER FINANCIAL

[illegible]

PAPER, PACKAGING & PRINTING

[illegible]

PHARMACEUTICALS

[illegible]

PROPERTY

[illegible]

PROPERTY - Cont.

[illegible]

PROPERTY - Cont.

[illegible]

RETAILERS, FOOD

[illegible]

RETAILERS, GENERAL

[illegible]

RETAILERS, GENERAL - Cont.

[illegible]

SUPPORT SERVICES

[illegible]

SUPPORT SERVICES - Cont.

[illegible]

TELECOMMUNICATIONS

[illegible]

TEXTILES & APPAREL

[illegible]

TOBACCO

[illegible]

TRANSPORT

[illegible]

WATER

[illegible]

AIM

[illegible]

AIM - Cont.

[illegible]

AMERICANS

[illegible]

CANADIANS

[illegible]

SOUTH AFRICANS

	Notes	Price	+ or -	52 week High	52 week Low	Mkt Cap£m	Yld Gr's	P/E
Anglo Am Ind R		£23½	—	*£27½	£20¼	1,869	2.9	Φ
Barlow	♣†	594	---	692	554	1,202	2.2	14.0
Gold Fids Prop R		137½	-2	187	122	14.1	5.8	11.5
SA Brews		£18½	-½	£23¼	£13¾	4,888	2.2	Φ
Standard Bank		£28½	+1½	£30	£21	3,177	2.0	-
Tiger Oats	†	980	-60	1180	780	1,346	1.9	18.5
Tongaat-Hulett		730½	-3¼	780	676¼	708.2	2.4	Φ

GUIDE TO LONDON SHARE SERVICE

Prices for the London Share Service are delivered by Extel, part of Financial Times Information.

Company classifications are based on those used for the FTSE Actuaries Share Indices.

Closing mid-prices are shown in pence unless otherwise stated. For FTSE 100 Index constituents and reserves marked † in the Trading Volume table on the LSE page, last trade prices at or prior to 4:30pm market close are shown, as these shares are now traded on the Stock Exchange Electronic Trading System ("SETS"). Highs and lows are based on intra-day mid-prices/last trades over a rolling 52 week period.

Where stocks are denominated in currencies other than sterling, this is indicated after the name. Prices shown for some of these foreign securities are converted into sterling from latest available local Stock Exchange prices.

Symbols referring to dividend status appear in the notes column daily as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Monday.

Market capitalisation shown is calculated separately for each line of stock quoted.

Earnings used in calculations are based on IIMR 'Headline Earnings' formula.

Price/earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent and allow for value of declared distribution and rights.

Estimated Net Asset Values (NAVs) are shown for Investment Trusts, in pence per share, along with the percentage discounts (Dis) or premiums (Pm -) to the current closing share price. The NAV basis assumes prior charges at par value, convertibles converted and warrants exercised if dilution occurs.

- * Highs and lows marked thus have been adjusted to allow for capital changes
- † Interim since increased or resumed
- ‡ Interim since reduced, passed or deferred
- Φ Figures or report awaited
- ♥ Rule 2.1(a)(iv) Overseas incorporated companies listed on an approved exchange.
- ♣ Free annual/interim report available, see details below.
- ‡‡ Rule 4.2(a) Irish incorporated non-listed companies.
- ¶ Price at time of suspension
- ¶ Indicated dividend yield after pending scrip and/or rights issue
- ♦ Merger bid or reorganisation in progress
- § Forecast dividend yield; p/e based on earnings updated by latest interim statement.
- ♠ Unregulated collective investment scheme.

a Yield based on annualised dividend. b Figures based on prospectus or other official estimate. previous year's earnings. z Dividend yield includes a special payment. F Yield based on prospectus or other official estimates for 1997. s Dividend yield excludes a special payment. t Indicated dividend yield, p/e ratio based on latest annual earnings. u Forecast, or estimated annualised dividend yield, p/e based on K Yield based on prospectus or other official estimates for 1998. L Estimated annualised yield, p/e based on latest annual earnings. H Yield based on prospectus or other official estimates for 1997-98. X Dividend is paid in W Pro forma figures. Z Dividend yield to date. Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xt ex capital distribution.

This service is available to companies whose shares are regularly traded in the United Kingdom for a fee of £1425 a year for each security shown, subject to the Editor's discretion

♣ FT Free Annual Reports Service

You can obtain the current annual/interim report of any company annotated with ♣ . Please quote the code FT2585. Ring 0181 770 0770 (open 24 hours including weekends) or Fax 0181 770 3822. Reports will be sent the next working day, subject to availability.

FT Company Focus / Focus Plus

Comprehensive 10-18 page report available on this company, containing key news stories from the last year, latest survey of City profit forecasts and investment recommendations, 5 year financial and share price performance review, balance sheet and profit and loss data, plus recent Stock Exchange announcements.
Company Focus (FT news) £8.45.
Focus Plus (FT and Investors Chronicle news) £10.95.
To order, call 0121 200 4676.
Reports published by ShareFinder.

FT Cityline

Up-to-the-second share prices are available by telephone from the FT Cityline service. See Monday's share price pages for details.
Calls are charged at 50p per minute at all times.
An international service is available for callers outside the UK, annual subscription £250 stg. Please consult your financial adviser and verify financial pricing information obtained via FT Cityline before making any investment decision.
All access to and use of FT Cityline is subject to FT Cityline terms and conditions - your copy will be sent free on request.
Call 0171 873 4378 for more information on FT Cityline.

The share prices printed on these pages are also available on the Internet at http://www.FT.com.

LONDON STOCK EXCHANGE

Hong Kong dip erodes London's confidence

MARKETS REPORT

By Steve Thompson,
UK Stock Market Editor

Nerves in London's stock market were being tested again yesterday as Monday's strong performance by Wall Street was offset by another slide in shares on the Hong Kong market.

The 4 per cent fall in Hong Kong came in relative isolation – many other far eastern stock markets such as Bangkok, Seoul and Manila closed up on the day – but it sent shivers across European markets.

They had been expected to come in stronger after the 3 per cent rise in the Dow Jones Industrial Average on Monday.

And with Wall Street succumbing to a bout of profit-taking in early trading yesterday after its near 300-point rise over the past two sessions, London's FTSE 100 index finished the day with a moderate loss of 9.0 at 4,897.4.

The losses in the leaders did not carry over into the rest of the market, however. The second-liners never really looked uncomfortable, and the FTSE 250 settled not too far from its session high of 4,678.5, ending the day 11.2 up at 4,674.8.

Similarly, the FTSE Smallcap made modest progress to close 1.5 ahead at 2,321.7.

Dealers, frustrated by the intensity of moves in recent sessions but equally by the lack of volume, complained bitterly.

"It's either feast or famine. We've not got to grips with the new order-driven system. The big institutions are simply not putting up enough commercial bids and offers and the spreads are too wide," said one trader.

"Volume is suffering and what makes it more difficult to take is that the institutions are asking the old marketmakers to make them prices in large sizes which, if it persists, will undermine the new system."

Others pointed out, however, that the new system had coped well with the turmoil since Big Bang Mark Two. One former marketmaker said his firm would probably have lost around £5m last week committing capital to back its marketmakers and that as a whole the marketmaking system would probably have lost getting on for £40m.

The feeling was that markets had still to contend with problems in the far east and would also have to deal with the worry that rates in the US and the UK could rise in the near future.

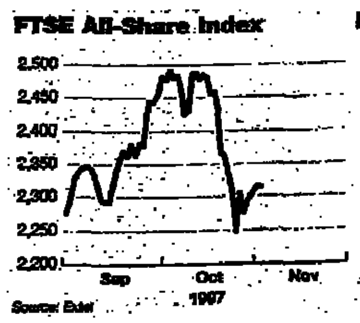
"The market's confidence has been eroded and it is not over yet by any means," said the head trader at one big European securities house.

The UK's monetary policy committee meets today to debate interest rate policy while the US Federal Reserve's open market committee sits next week.

Turnover in equities remained painfully thin. At 6pm, volume was 740m, although this figure was inflated by the 64m shares traded in Hartstone, a penny stock, which accounted for almost 9 per cent of the total. Non-FTSE 100 stocks accounted for 62 per cent.

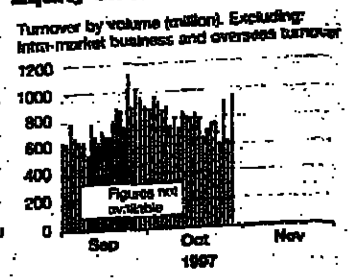
Next, the high street retailer, was the best *Footsie* performer, reversing the previous day's showing, after one of the big US investment banks recommended the shares.

FTSE All-Share Index



Equity shares traded

Turnover by volume (million). Excluding: intra-market business and overseas turnover



Indices and ratios

FTSE 100	4897.4	–9.0
FTSE 250	4674.8	+11.2
FTSE 350	2366.1	–2.3
FTSE All-Share	2316.92	–2.06
FTSE All-Share yield	3.34	3.33
FT 30	3179.9	+8.0
FTSE Non-Fins p/e	19.70	19.67
FTSE 100 Fut Dec	4914.5	–50.5
10 yr Gilt yield	6.63	6.64
Long gilt/equity yld ratio	1.98	1.99

Best performing sectors

1 Life Assurance ......+1.6
2 Diversified Inds ......+1.4
3 Tobacco ......+1.0
4 Support Services ......+0.9
5 Electronic & Elec ......+0.8

Worst performing sectors

1 Banks: Retail ......–1.2
2 Building Mats & Merch ......–1.0
3 Breweries: Pubs & Rest ......–1.0
4 Oil: Integrated ......–0.9
5 Water ......–0.8

Next rallies strongly

By Joel Kibazo, Martin Brice and Peter John

The market spotlight remained fixed on Next throughout the session as shares in the clothes retailer bounced sharply following a broker recommendation and favourable press comment.

The shares, which fell 23 on Tuesday on concerns about current trading and inventory worries, recovered yesterday after Morgan Stanley recommended the stock. They ended the day as the best performing stock in the *FTSE 100, up 47 or 6.8 per* cent at 734p.

Julie Ramshaw, at Morgan Stanley, saw no reasons for the market's recent nervousness: "With the advent of the cold weather in October, apparel sales have improved and we continue to believe Next is one of the most resilient competitors in the retail sector."

On a value basis, Morgan Stanley prefers Next to Marks and Spencer, which reported interim figures yesterday. Disappointment that the figures were at the bottom end of market expectations, together with active profit-taking, saw shares in the leading high street retailer surrender 10 to 600p. In spite of an upbeat analysts' meeting, several indicated they would be lowering full-year profit forecasts.

Zeneca dropped 40 to £18.55 on the order book as ABN Amro Hoare Govett cut the stock to "sell" from "overvalued" and cited concerns about the prospects of key drugs.

Analyst Anthony Colletta said Zeneca's research and *development pipeline was* empty until 2001 and the company had only three products in Phase Two and Three development, compared with 41 for Glaxo and 30 for SmithKline Beecham.

Mr Colletta said the bid premium, which came into the share price after the merger between Glaxo and Wellcome and between Ciba and Sandoz, had been slowly leeching away over the past 12 months. "Zeneca will never perform in a US league. It is partly an indus*trial conglomerate and the* rating should be more aligned with that sector," he said. Consequently, he set a "fair value" on the stock of just £15.50. Zeneca is due to give an update on its R&D pipeline on December 1.

Glaxo Wellcome, meanwhile, recovered 29 to £13.09 as analysts argued that the spill, which followed a warning by Warner Lambert of the US on its diabetes product, was overdone. SmithKline Beecham was steady at 560p.

Thames Water sank close to the bottom of the day's Footsie performers as analysts seized on results as an opportunity to point out the stock's relative outperformance.

The company posted profits before exceptionals of £202m for the first half, within forecasts and up from £188m. It raised its dividend 11.6 per cent to 12.5p per share.

The dividend increase was seen as disappointing compared to last week's payout from Anglian Water, which was up 12.5 per cent.

Charterhouse Tilney was among the list of brokers who noted Thames's strong outperformance. Kevin Lapwood of Charterhouse said: "At the start of trading, Thames had outperformed the market by 26 per cent over the past 12 months and the sector by 15 per cent. I agree that the stock had some catching up to do but it has gone too far."

Mr Lapwood recommended a switch from Thames into Severn Trent. Thames fell 37 to 873p. Anglian was steady *at 790p and Severn gained 7* to 870p.

The news that Rolls-Royce had secured its first order for Trent engines from Air Canada, worth up to $450m (£270m), left the market unimpressed. The shares lost a penny at 215p, in a decline said to be due to fears of the long-term effects of sterling's strength. The company suf*fers a £5m loss for each one* cent gain in the value of sterling, and up to £3.5m for each one percentage point move in interest rates, although it hedges much of its exposure.

Senior Engineering is hosting a three-day visit by brokers and analysts to its US operations, and first indications seem to be bullish for the company. Panmure Gordon has changed its stance on the stock from "hold" to "buy," and is a buyer up to 200p. However, *ahead of the main flow of* news from the visit, the stock eased 1¼ to 163¼p.

Wellman, the design engineer, gained 6¾ to 37p after it said it was in talks that might lead to an offer.

Racal Electronics shed 3 to 218½p on the back of a report that Deutsche Telekom, Telecom Italia and AT&T had said they were *not interested in buying the* company's telecoms arm.

However, volumes were small.

An 11 per cent rise in third-quarter profits failed to help BP remain in the blue. The profit after tax of £691m was above analysts' forecasts and higher than the previous figure of £650m. A strong increase in refining and marketing profits more than offset the impact of lower oil prices. The overall results were towards the top of expectations but there *was a feeling that earnings* could mark time next year. Profit-taking after a strong run saw the shares end 10½ off at 883p.

United Assurance rose 11½ to 502p as the departure of the insurance company's chief executive continued to raise hopes of a re-rating of the shares.

Sun Life & Provincial added 17 at 382p on the order book, as NatWest Securities lifted the stock to "hold" from "reduce". Sun Life has underperformed the market by 11 per cent, and the rest of the life assurance sector by 14 per cent, since NatWest downgraded the stock in September.

Insurance broker Willis Corroon held relatively firm despite news that headline profits fell 20 per cent to £68.1m because of sterling's strength, competition and the effect of a series of disposals. A statement that it was hopeful of hitting year-end profit targets cushioned the slide to 2½, leaving the *shares at 124p.*

National Power added 6 at 506p with suggestions of support from BZW, which issued 10m American-style call warrants on the stock. Warrants are essentially options to buy stock at a later date and issuers often hedge by buying underlying shares in the market. One warrant controls one share.

Hartstone, the leather *goods and hosiery group,* was the most heavily traded stock as one institution sold a 10 per cent stake. The trading screens suggested the shares were crossed at 5¾ and the company believed the shares were sold to a number of institutions. The biggest recorded shareholders are Schroders, with just under 20 per cent, and PDFM, with 13 per cent. The shares were flat at 5¾p.

FT 30 INDEX

	Nov 4	Nov 3	Oct 31	Oct 30	Oct 29	Yr ago	*High	*Low
FT 30	3179.9	3171.9	3134.0	3122.8	3167.9	2781.0	3430.3	2668.8
Ord. div. yield	3.54	3.55	3.60	3.61	3.56	4.11	4.22	3.29
P/E ratio net	20.76	20.69	20.44	20.36	20.66	16.80	22.83	15.80
P/E ratio nil	20.47	20.41	20.16	20.09	20.36	16.64	22.02	15.71

FT 30 since compilation: high 3430.3 16/10/97; low 49.4 26/06/40. Base Date: 1/7/35.

FT 30 hourly changes

Open	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	High	Low
3173.0	3174.6	3176.2	3177.0	3176.8	3178.0	3176.5	3181.6	3167.5	3195.0	3167.1

	Nov 4	Nov 3	Oct 31	Oct 30	Oct 29	Yr ago
SEAQ bargains	43,899	47,670	44,706	55,562	77,192	37,653
Equity turnover (£m)†	–	NA	2232.8	2306.3	3172.5	1448.8
Equity bargains†	–	NA	38,504	44,940	71,611	28,280
Shares traded (ml)†	–	NA	638.3	617.7	952.4	476.3

†Excluding intra-market and overseas turnover but including Crest turnover.

 *For 1997. FT30 close values recalculated from 20/10/97 to 31/10/97. For further information contact FTSE International on +44(0)171 448 1816.

London market data

Rises and falls*		52 Week highs and lows		LIFFE Equity options	
Total Rises	845	Total Highs	35	Total contracts	18,139
Total Falls	709	Total Lows	65	Calls	6,932
Same	1,500			Puts	11,207

Nov 4 *Data based on Equity shares listed on the London Share Service.

FUTURES AND OPTIONS

■ FTSE 100 INDEX FUTURES (LIFFE) £25 per full index point (APT)

	Open	Sett price	Change	High	Low	Est. vol	Open int
Dec	4940.0	4914.5	-50.5	4970.0	4906.0	8180	69156
Mar		4955.5	-50.5			0	5721

■ FTSE 250 INDEX FUTURES (LIFFE) £10 per full index point

	Open	Sett price	Change	High	Low	Est. vol	Open int
Dec		4705.0	+40.0			0	9351

■ FTSE 100 INDEX OPTION (LIFFE) (*4888) £10 per full index point

■ EURO STYLE FTSE 100 INDEX OPTION (LIFFE) £10 per full index point

† Long dated expiry months.

LONDON RECENT ISSUES: EQUITIES

Issue price p	Amt paid up	Mkt. cap (£m.)	1997 High	1997 Low	Stock	Close price p	+/-	Net div.	Div. cov.	Grs yld	P/E net
§	F.P.	–	102¼	100½	Asset Mn Zero Dv	[illegible]	[illegible]				
	F.P.	1,354	30½	30½	BG 'B'	[illegible]					
	F.P.	0.74	17½	16½	†Buckland Inv	[illegible]					
	F.P.	0.08	12	8	†Buckland Inv Wrt	[illegible]					
§126	F.P.	114.9	170	165	Holmes Place	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
155	F.P.	16.8	176½	162½	Latchways	[illegible]					
§110	F.P.	9.25	94½	87½	Leicester City	[illegible]					
§86.5	F.P.	27.1	102½	95½	†Marlborough Intl	[illegible]		[illegible]	–	–	[illegible]
*	F.P.	85.5	99½	70½	†Metalrussia	[illegible]					
§115	F.P.	16.3	170½	140	†NSB Retail Sys	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
250	F.P.	469.0	252½	225	Newsquest	234½xd	+½	W5.4	3.0	2.9	14.4
70	F.P.	27.5	69½	53	Nott'ham Forest	60½	-1	-	-	-	-
	F.P.	601.7	2180	2120	Nycomed Am N/V	2180		16.0	2.8	0.9	49.1
§245	F.P.	150.1	287½	245	SHL Group	281½		LW4.5	-	2.0	-
§149	F.P.	8.69	192½	152½	†Solitaire	190½		R6.0	1.2	3.9	14.2
§147	F.P.	164.7	177½	157½	Ultraframe	177½		R3.5	2.1	2.5	23.8
§79	F.P.	5.98	97½	85½	†Weather Action	88½	-2	-	-	-	-
§110	F.P.	56.1	117½	108½	Xaar	110		-	-	-	-

† Alternative Investment Market. § Placing price. * Introduction. For a full explanation of all other symbols please refer to The London Share Service notes.

FTSE GOLD MINES INDEX

	Nov 3	% chg on day	Oct 31	Year ago	Gross div yield %	P/E ratio	52 week High	52 week Low
Gold Mines Index (33)	1250.75	+0.7	1241.83	1873.42	2.34	–	1985.11	1219.85
■ Regional Indices								
Africa (15)	1261.46	+1.1	1247.16	2475.26	5.92	21.89	2502.51	1192.32
Australasia (6)	1232.48	+0.6	1224.65	2063.53	3.20	14.76	2217.80	1135.38
North America (12)	1264.94	+0.6	1257.21	1679.59	1.06	47.01	1839.77	1227.49

 Figures in brackets show number of companies. Basis US Dollars. Base Value: 1000.00 31/12/92. † Partial. Latest prices were unavailable for this edition.

FTSE Actuaries Share Indices — The UK Series

Produced in conjunction with the Faculty and Institute of Actuaries

	Nov 4	Day's chge%	Nov 3	Oct 31	Year ago	Gross yield%	Net yield%	Net cover	P/E ratio	Xd adj. ytd	Total Return
FTSE 100	4897.4	-0.2	4906.4	4842.3	3921.1	3.30	2.71	2.07	16.28	130.49	2107.95
FTSE 250	4674.8	+0.2	4663.6	4643.2	4405.2	3.57	2.92	1.78	19.70	130.53	1971.39
FTSE 250 ex IT	4705.4	+0.3	4692.7	4674.3	4447.4	3.68	3.02	[illegible]	[illegible]	[illegible]	[illegible]

■ FTSE Actuaries Industry Sectors

■ Hourly movements

■ TRADING VOLUME

■ Major Stocks Yesterday

![FTSE INTERNATIONAL]

Highs & Lows shown on a 52 week basis

WORLD STOCK MARKETS

EUROPE

PACIFIC

AFRICA

NORTH AMERICA

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by FTSE International Limited, Goldman, Sachs & Co. and Standard & Poor's. The Indices are compiled by FTSE International and Standard & Poor's in conjunction with the Faculty of Actuaries and the Institute of Actuaries. NatWest Securities Ltd. was a co-founder of the Indices.

NATIONAL AND REGIONAL MARKETS Figures in parentheses show number of lines of stock	MONDAY NOVEMBER 3 1997 US Dollar Index	Day's Change %	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	Local % chg on day	Gross Div. Yield	FRIDAY OCTOBER 31 1997 US Dollar Index	Pound Sterling Index	Yen Index	DM Index	Local Currency Index	DOLLAR INDEX 52 week High	52 week Low	Year ago (approx)
Australia (78)	209.53	3.0	185.24	159.98	189.13	195.41	1.6	3.93	203.51	179.92	154.72	182.10	192.02	243.87	190.41	211.47
Austria (24)	202.05	1.9	178.63	154.27	182.38	182.32	2.8	1.80	198.33	175.33	150.78	177.48	177.41	213.59	175.14	180.69
Belgium (27)	249.79	0.9	220.83	190.72	225.47	220.66	1.8	3.12	247.60	218.89	186.23	221.54	216.81	261.11	219.71	219.71
Brazil (30)	232.93	9.5	205.93	177.85	210.25	472.75	9.5	1.54	212.77	188.10	161.75	190.39	431.78	322.44	178.94	183.86
Canada (123)	218.94	2.1	189.56	167.17	197.62	222.67	1.7	1.75	214.42	189.56	163.01	191.86	218.77	233.66	178.27	182.76
Denmark (32)	412.82	0.6	364.95	315.20	372.62	371.04	1.5	1.38	410.36	362.79	311.97	367.18	365.62	428.78	327.98	327.98
Finland (28)	319.97	3.0	282.88	244.31	288.82	349.99	3.8	1.78	310.65	274.63	236.17	277.96	338.88	349.43	216.01	216.01
France (84)	227.93	0.7	201.51	174.03	205.74	207.66	1.6	2.57	226.36	200.12	172.09	202.54	204.38	246.23	201.56	201.56
Germany (58)	218.42	2.2	193.10	166.77	197.15	197.15	3.1	1.48	213.67	188.90	162.44	191.19	191.19	243.87	180.67	181.00
Hong Kong, China (66)	389.74	6.0	344.55	297.58	351.79	387.04	6.1	4.09	367.53	324.92	279.41	328.85	364.72	580.03	314.78	466.60
Indonesia (27)	138.38	11.9	122.34	105.66	124.91	273.36	0.0	2.48	123.64	109.30	93.99	110.63	273.43	254.90	101.96	204.66
Ireland (17)	377.64	0.1	333.86	288.34	340.87	356.20	0.8	2.72	377.08	333.37	286.69	337.41	353.18	394.88	310.26	316.99
Italy (53)	109.13	1.5	95.60	82.56	97.60	137.32	2.1	1.73	106.50	94.16	80.97	95.30	134.43	115.27	75.44	75.44
Japan (484)	109.37	-0.4	96.69	83.51	98.72	83.51	0.0	0.85	109.85	97.11	83.51	98.29	83.51	143.38	107.57	139.60
Malaysia (107)	257.83	10.8	227.94	196.86	232.72	320.27	6.7	2.24	232.68	205.68	176.88	208.18	300.17	680.85	222.86	576.82
Mexico (27)	1602.51	6.1	1418.72	1223.58	1446.47	14446.10	3.9	1.89	1510.28	1335.18	1148.18	1351.36	13903.89	1901.96	1147.98	1163.24
Netherlands (19)	411.30	2.2	363.62	314.04	371.25	386.96	3.0	2.27	402.43	355.78	305.95	360.09	356.46	440.67	307.19	307.38
New Zealand (14)	85.81	3.1	75.86	65.52	77.45	72.05	1.7	4.26	83.25	73.60	63.29	74.49	70.87	98.47	75.37	91.51
Norway (38)	350.60	0.1	309.95	267.69	316.46	336.14	1.0	1.82	350.22	309.61	266.25	313.35	332.77	374.64	267.07	267.07
Philippines (22)	84.41	0.9	74.62	64.45	76.19	148.06	0.4	1.43	83.62	73.93	63.57	74.82	147.42	214.07	78.40	196.37
Singapore (42)	259.74	10.3	229.62	198.32	234.45	184.57	8.1	1.71	235.45	208.16	179.00	210.68	170.68	448.01	215.21	379.13
South Africa (43)	295.15	3.4	261.91	226.12	267.31	309.73	2.8	2.75	285.37	253.17	217.71	256.24	301.29	370.12	259.47	335.82
Spain (33)	250.38	0.2	221.36	191.18	226.00	278.12	1.1	2.43	249.82	220.85	189.92	223.53	275.10	277.33	186.28	186.28
Sweden (49)	482.83	2.0	426.85	368.65	435.81	540.19	3.0	1.92	473.16	418.31	359.72	423.37	524.24	538.94	391.68	392.37
Switzerland (33)	315.39	0.6	278.82	240.81	284.68	276.71	1.9	1.20	313.52	277.18	238.35	280.53	271.42	329.59	231.69	240.73
Thailand (39)	29.99	3.1	26.52	22.90	27.07	47.67	2.9	5.89	29.09	25.72	22.11	26.03	46.31	129.94	29.09	113.84
United Kingdom (215)	323.89	1.2	286.34	247.30	292.35	286.34	1.2	3.41	320.00	282.90	243.27	286.32	282.90	337.99	259.04	260.75
USA (645)	382.29	2.6	397.97	291.89	345.06	382.29	2.6	1.61	372.70	329.49	283.34	333.49	372.70	399.82	286.24	286.24
Americas (825)	348.15	2.6	307.79	265.83	314.25	293.63	2.6	1.62	339.17	299.85	257.85	303.48	286.16	365.75	262.17	262.17
Europe (710)	279.43	1.3	247.04	213.35	252.22	258.95	1.9	2.47	275.60	243.63	209.68	246.78	252.15	298.25	223.57	223.57
Nordic (147)	426.48	1.6	377.03	325.63	384.95	416.70	2.7	1.80	419.08	370.50	318.60	374.96	405.70	464.93	334.01	334.01
Pacific Basin (877)	121.33	0.9	107.26	92.64	109.51	93.85	1.0	1.56	120.21	106.27	91.39	107.56	92.94	160.86	117.29	154.71
Euro-Pacific (1587)	187.30	1.2	165.59	143.01	169.06	154.98	1.6	2.13	185.14	163.67	140.75	165.65	152.62	209.12	173.55	183.28
North America (768)	372.12	2.5	328.98	284.13	335.89	371.68	2.5	1.62	362.87	320.80	275.87	324.69	362.48	389.57	280.10	280.10
Europe Ex. UK (495)	249.55	1.4	220.62	190.54	225.25	234.89	2.3	1.92	246.17	217.63	187.15	220.26	229.59	267.07	198.96	198.96
Pacific Ex. Japan (393)	228.25	5.8	201.79	174.28	206.03	214.22	4.4	3.61	215.73	190.72	164.00	193.03	205.12	320.65	194.30	296.39
World Ex. US (1810)	191.26	1.4	169.09	146.04	172.64	161.94	1.7	2.11	188.67	166.79	143.43	168.91	159.26	212.89	176.94	185.36
World Ex. UK (2240)	245.86	2.1	217.36	187.72	221.92	218.42	2.2	1.68	240.90	212.97	183.15	215.56	214.63	262.69	211.16	212.79
World Ex. Japan (1971)	324.68	2.4	287.03	247.90	293.06	314.61	2.5	2.00	317.22	280.44	241.16	283.84	307.26	344.35	258.43	258.43
The World Index (2455)	252.50	2.0	223.23	192.79	227.92	225.53	2.1	1.86	247.63	218.92	188.26	221.57	220.84	268.47	218.61	216.90

Emerging markets: IFC investable indices

Dollar terms

Nov 3 Market		Day's % chg	% Chg since 31/12/96
Latin America			
Argentina	1,046.42	+4.3	+10.1
Brazil	477.09	+8.8	+20.4
Chile	710.96	+1.6	+14.5
Colombia[1]	870.96	+0.1	+87.6
Mexico	708.21	+6.7	+33.3
Peru[2]	227.43	+1.9	+15.6
Venezuela[3]	1,006.08	+1.0	+38.2
East Asia			
China[4]	71.66	+0.7	-2.5
Korea[5]	52.74	+7.4	-31.7
Philippines	129.68	+0.9	-56.2
Taiwan, China[6]	141.07	-3.4	-5.0
South Asia			
India[7]	92.81	-0.5	+17.8
Indonesia[8]	76.95	+12.5	-40.0
Malaysia	147.37	+11.1	-56.3
Pakistan[9]	262.28	-1.9	+34.0
Sri Lanka[10]	119.75	-0.1	+25.9
Thailand	69.32	+0.1	-69.7
Europe/Mideast/Africa			
Czech Rep	60.93	+1.5	-13.2
Egypt	101.56	-0.1	-
Greece	351.16	+3.6	+44.9
Hungary[11]	282.34	+2.3	+45.5
Israel	122.11	+4.1	+22.1
Jordan	212.07	-0.3	+13.6
Morocco	131.97	-0.7	-
Poland[12]	842.95	+3.1	-12.2
Portugal	185.23	-0.3	+33.6
Russia	169.14	+3.6	-
S Africa[13]	199.29	+3.5	-4.5
Slovakia	105.54	+1.2	-
Turkey[14]	276.16	+0.8	+87.0
Zimbabwe[15]	534.16	-0.8	+12.8
Regions			
Composite	288.19	+5.0	-9.1
Latin America	880.56	+5.5	+22.9
Asia	147.29	+6.4	-41.7
EMEA	153.97	+2.4	-14.7

Base date: Dec 1988=100 except those noted which are: (1)Feb 1 1991; (2)Dec 31 1992; (3)Jan 5 1990; (4)Dec 31 1992; (5)Jan 3 1992; (6)Jan 4 1991; (7)Nov 6 1992; (8)Sep 28 1990; (9)Mar 1 1991; (10) Dec 31 1992; (11)Dec 31 1993; (12)Dec 31 1992; (13)Dec 31 1992; (14)Dec 31 1992; (15)Aug 2 1993; (16) July 2 1993.
Latest indices were unavailable for this edition

4 pm close November 4

NEW YORK STOCK EXCHANGE PRICES

[illegible]

Price data supplied by Extel, part of FT Information

Yearly highs and lows for NYSE reflect the period from Jan 1 1997. Unless otherwise noted, rates of dividend are annual disbursements based on the latest declaration. Sales figures are unofficial.

d-new yearly low. P/E price-earnings ratio. ds-sales. u-new yearly high. x-ex-dividend or ex-rights. yld-yield. z-sales in full. ‡ Dealings suspended.

صكتا من الاصل

هكذا من الاصل

GLOBAL EQUITY MARKETS

US INDICES

Dow Jones	Nov 3	Oct 31	Oct 30	1997 High	1997 Low	Since compilation High	Since compilation Low
Industrials	7674.39	7442.08	7381.67	8259.31 (6/8)	6391.69 (11/4)	8259.31 (6/8/97)	41.22 (8/7/32)
Home Bonds	104.26	104.03	103.97	104.78 (31/7)	101.08 (14/4)	104.70 (31/7/97)	54.99 (1/10/81)
Transport	3203.25	3131.46	3081.65	3359.27 (15/10)	2222.07 (2/1)	3359.27 (15/10/97)	13.23 (8/7/32)
Utilities	245.25	242.59	241.33	248.56 (27/10)	209.47 (25/4)	266.46 (31/8/93)	16.53 (8/7/32)

DJ Ind. Day's high 7709.02 (7544.24) Low 7503.48 (7329.61) (Theoretical)
Day's high 7674.40 (7495.86) Low 7443.07 (7352.89) (Actual)

Standard and Poors	Nov 3	Oct 31	Oct 30	1997 High	1997 Low	Since compilation High	Since compilation Low
Composite‡	938.99	914.62	903.68	983.12 (7/10)	737.01 (2/1)	983.12 (7/10/97)	4.40 (1/6/32)
Industrials¶	1094.98	1065.55	1052.53	1148.82 (7/10)	865.42 (11/4)	1148.82 (7/10/97)	3.52 (30/6/32)
Financial¶	111.90	109.10	107.80	118.04 (7/10)	80.75 (2/1)	118.04 (7/10/97)	7.13 (4/8/74)
Others							
NYSE Comp.	482.83	481.14	475.83	514.21 (7/10)	389.47 (11/4)	514.21 (7/10/97)	4.64 (25/4/42)
Amex Comp	685.89	675.75	670.84	721.99 (7/10)	541.20 (28/4)	721.90 (7/10/97)	524.20 (16/7/98)
NASDAQ Cmp	1629.98	1593.61	1570.41	1745.85 (9/10)	1201.00 (2/4)	1745.85 (9/10/97)	54.87 (3/10/74)
Russell 2000	440.98	433.26	428.68	465.21 (13/10)	335.85 (25/4)	465.21 (13/10/97)	123.36 (7/12/93)

■ RATIOS

	Oct 31	Oct 24	Oct 17	Year ago
Dow Jones Ind. Div. Yield	1.80	1.73	1.70	2.15
	Oct 29	Oct 22	Oct 15	Year ago
S & P Ind. Div. yield	1.55	1.47	1.47	1.95
S & P Ind. P/E ratio	24.60	25.98	25.95	22.80

US DATA

■ MARKET ACTIVITY

● Volume (million)	Nov 3	Oct 31	Oct 30
NYSE	573.200	638.070	712.230
Amex	24.735	27.448	31.931
NASDAQ	651.169	719.508	764.939

NYSE	Nov 3	Oct 31	Oct 30
Issues Traded	3,425	3,421	3,411
Rises	2,349	2,066	780
Falls	645	887	2,182
Unchanged	431	468	459
New Highs	87	58	31
New Lows	14	17	44

■ NYSE TRADING ACTIVITY — Volume : 530,557,000

■ ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Ph Morris	7,367,200	41⅞	+1⅞
Compaq	6,072,700	67	+3¾
Sears Roeb	5,435,400	45⅞	+3⅞
Tel Brasil	4,972,100	112⅛	+10⅞
Waste Mng	4,428,900	23⅞	+½
Gen Elect	4,279,000	67¼	+2⅞
Allghny Tl	4,245,600	27⅞	+1½
AT & T	4,103,600	49⅞	+1
IBM	3,876,200	101¾	+3⅞
Boeing	3,567,900	47⅞	–⅛

■ BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
MS Group	31⅞	+4⅞	+16.6
Tel Brasil	112⅛	+10⅞	+10.3
C Color Frm	47¾	+4⅞	+10.3
Warbrg Nov	58¼	+5¼	+9.9
Downs			
Mossimo	8	–1½	–15.8
Fleer Cp	36	–5¼	–12.5
Int Da Carm	10	–1¼	–11.1
US Filter	36⅞	–3⅞	–8.6

■ NASDAQ TRADING ACTIVITY — Volume : 633,751,000

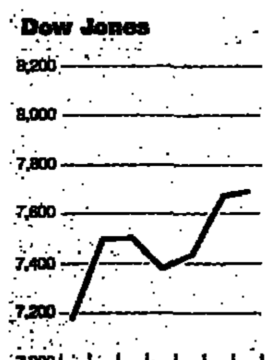
■ ACTIVE STOCKS

Monday	Stocks traded	Close price	Day's change
Intel Corp	16,903,400	78⅝	+1½
Appld Mtl	10,648,500	35⅞	+2⅞
Cisco Sys	8,877,800	84¾	+2¼
3Com	8,891,500	43⅞	+2
Microsoft	8,236,500	134½	+4¾
Oracle	8,195,600	35⅝	+½
Amgen	7,827,700	52¼	+3¼
Dell Cmptr	7,861,000	83¼	+3¾
Ascend Com	7,591,300	28⅞	–⅞
Oregon Mtl	6,870,100	33⅝	+10⅞

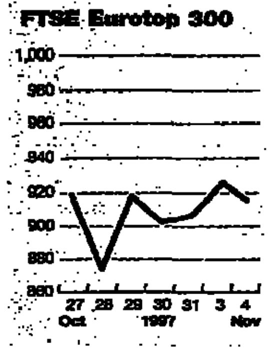
■ BIGGEST MOVERS

Monday	Close price	Day's change	Day's chge %
Ups			
Oregon Mtl	33⅝	+10⅞	+44.5
Indiana Cm	20¾	+4¾	+29.4
Cmwlth Tel	26¼	+4½	+20.2
1-Sat Crp	24⅞	+4⅞	+20.2
Downs			
Tech Chem	15	–2⅞	–15.2
Granite Brd	49¾	–8¾	–14.4
Natl Secty	20	–3	–13
Mazel Strs	13¾	–1⅞	–12.1

Dow Jones



FTSE Eurotop 300



JAPAN

	Nov 4	Nov 3	Oct 31	1997 High	1997 Low	Since compilation High	Since compilation Low
Nikkei 225	16500.10	(c)	16458.94	20681.07	16312.69	38915.9	16312.7

■ TOKYO TRADING ACTIVITY — Volume : 341,000,000

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Bk Tk-Mitsbi	8,327,000	1830	+60
Sumo Mit In	5,807,000	247	+8
Hitachi	5,716,000	980	+35
NKK Corp	5,653,000	163	–4
Nippon Stl	5,382,000	259	+11
Sakura Bk	4,826,000	501	+10
Mbishi Hvy	4,627,000	570	–21
Sumo Bnk	4,468,000	1310	+30
Toyota Mtr	4,293,000	3360	+10
Kawski Stl	4,101,000	209	–2

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Nip Dry Chm	370	+40	+12.1
Nakano Cp	189	+19	+11.2
Sankei Bld	650	+60	+10.2
Soda Nikko	330	+30	+10
Downs			
Toyo Eng	257	–46	–15.2
Natl Secs	110	–15	–12
Daikin Inds	638	–78	–10.9
Mishiba Com	3790	–460	–10.8

FRANCE

	Nov 4	Nov 3	Oct 31	1997 High	1997 Low	Since compilation High	Since compilation Low
CAC 40	2774.90	2787.96	2739.30	3094.01	2256.97	3094.01	984.61

■ PARIS TRADING ACTIVITY — Volume : 369,108,200

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Fr Telecom	7,437,528	218	+0.2
Rhn-Polnc A	1,305,367	253.8	–1.2
B.N.P.	877,713	259.5	–3.5
GAN Group	378,096	122.8	+1.3
Axa-UAP	875,038	401.9	+1.3
Elf Aqtne	715,240	716	–5
AGF	584,600	303.1	–2.2
Alctl Alst	543,231	678	–16
Total B	524,405	634	–18
Usinor	495,850	98	–1

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Un Cred Bat	17.1	+3.9	+29.5
Lab Dolisos	179.0	+29.0	+19.3
Eur Computer	33.0	+5.0	+17.9
Eaux Mnls	3114.0	+414.0	+15.3
Downs			
Orfevre Chrs	1202.0	–248.0	–17.1
Immeub Pin	189.1	–30.9	–14.0
Agache	2160.0	–240.0	–10.0
Normapro	67.6	–7.45	–9.9

GERMANY

	Nov 4	Nov 3	Oct 31	1997 High	1997 Low	Since compilation High	Since compilation Low
DAX	3812.45	3854.07	3726.69	4438.93	2848.77	4438.93	931.18

■ FRANKFURT TRADING ACTIVITY — Volume : 9,489,937

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Siemens	665,934	108.55	–1.1
Bayer	647,463	60.2	–1.4
BASF	588,167	68	–0.9
Dt Telekom	398,961	32.75	–0.95
Dtsche Bnk	380,697	112.75	–2.35
Dmlr-Benz	375,640	118.4	–1.8
Bay Vereinbk	370,094	100.6	–1.2
Veba	368,044	98.8	+0.4
Commerzbnk	298,455	60.4	–0.9
Hoechst	285,743	68.3	–0.45

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Deta Model	76.0	+5.2	+7.3
Krupp	374.0	+23.8	+6.8
Leica Cam	42.5	+2.3	+5.7
Vossloh	96.5	+5.0	+5.5
Downs			
Marselle Klin	25.0	–3.5	–12.3
Metro Prf	59.0	–3.7	–5.9
Hochtief	69.0	–4.0	–5.5
Lahmeyer	81.0	–4.1	–4.8

UK

	Nov 4	Nov 3	Oct 31	1997 High	1997 Low	Since compilation High	Since compilation Low
FTSE 100	4897.4	4906.4	4842.3	5330.80	4056.60	5330.8	986.9

■ LONDON TRADING ACTIVITY — Volume : 739,200,000

■ ACTIVE STOCKS

Tuesday	Stocks traded	Close price	Day's change
Hartstone	64,534,790	5¼	
LucasVarity	10,815,810	208½	+¼
BT	10,773,610	458	+2½
Marks & Sp	9,937,347	600	–10
Pilkington	8,852,069	148	–2½
Shell T&T	8,827,737	430	–3
Vodafone	8,612,569	334	–½
BP	8,026,623	883	–10½
Centrica	6,983,827	85¼	+¼
Aggreg Ind	6,664,259	52½	–1

■ BIGGEST MOVERS

Tuesday	Close price	Day's change	Day's chge %
Ups			
Wellman	37	+6¾	+22.3
Ch Stanley	171½	+29	+20.3
Monarch Rs	27½	+4½	+18.6
Next	734	+47	+6.8
Downs			
Meteor Tec	21½	–6½	–23.2
Sandsn Elec	81½	–14	–14.7
Innov Tech	115	–19	–14.2
Betterware	88	–11	–11.1

INDEX FUTURES

■ S&P 500	Open	Latest	Change	High	Low	Est. vol.	Open int.
Dec	922.00	945.70	+21.70	946.00	921.10	82,329	192,506
Mar	944.00	955.40	+21.90	955.50	943.00	432	6,503

■ Nikkei 225	Open	Sett price	Change	High	Low	Est. vol.	Open int.
Dec	16140.0	16460.0	–	16610.0	16050.0	28,425	174,967
Mar	16150.0	16530.0	–	16530.0	16110.0	48	9,607

Open interest figures for previous day.

■ CAC-40 (200 x index)	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Nov	2778.0	2777.0	–19.0	2804.0	2770.0	17,950	51,439
Dec	2783.0	2783.5	–17.5	2798.0	2776.5	2,264	17,552

■ DAX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Dec	3880.0	3793.0	–77.0	3889.0	3787.5	23,021	75,256
Mar	3895.0	3827.5	–67.5	3895.0	3824.5	261	5,455

■ OMX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Nov	2372.00	2364.00	–12.00	2377.00	2357.00	4,253	27,351
Dec	2379.00	2382.00	–	2382.00	2379.00	30	1,882

■ SOFFEX	Open	Sett Price	Change	High	Low	Est. vol.	Open int.
Nov	5550.0	5542.0	–53.0	5583.0	5538.0	4,578	26,210
Dec	–	5550.0	–	–	–	22	341

WORLD MARKETS AT A GLANCE

Country	Index	Nov 4	Nov 3	Oct 31	1997 High	1997 Low	Yield	P/E
Argentina	General	21172.85	21221.26	20418.11	25881.25 21/10	18237.37 2/1	3.65	17
Australia	All Ordinaries	2551.6	2603.8	2464.8	2779.20 25/9	2298.29 28/10	3.63	17.9
	All Mining	642.1	628.4	633.2	887.10 24/2	594.80 28/10		
Broadly higher, spurred by the Dow's rally on Monday and hopes that the Asian turmoil would soon be history.								
Austria	Credit Aktien	(u)	451.89	438.15	474.42 2/10	374.40 9/1	1.94	15.8
	Traded Index	1309.27	1342.97	1307.02	1480.49 31/7	1130.22 9/1		
Bearish international tone helped market fall, led by leading stocks.								
Belgium	BEL20	2360.59	2384.90	2336.84	2821.80 28/7	1871.95 2/1	2.39	15.8
General markdown, with move to defensive stocks such as SGBand Electrabel.								
Brazil	Bovespa	10211.0	9858.0	8986.0	13617.89 8/7	8955.80 2/1	0.52	na
Canada	TSE 100♦	413.97	414.86	407.25	438.48 7/10	342.12 11/4	1.72	20.7
	Metals Minls♦	4201.90	4232.88	4188.27	5891.76 10/3	4117.02 27/10		
	Composite♦	6934.00	6945.80	6842.40	7269.50 7/10	5629.30 14/4		
	Portfolio§§	3405.92	3399.29	3341.90	3547.88 7/10	2946.02 11/4		
♦Shares fell following profits warning from leading software group, Newbridge Networks.								
Chile	IGPA Gen¶	5078.27	5100.88	5071.22	5866.71 4/7	4912.42 2/1	3.48	16.5
China	Shanghai B	65.59	64.98	63.99	98.21 7/5	60.78 9/1	1.17	72.8
	Shenzhen B	115.11	113.57	113.27	184.29 6/6	109.74 28/10		
Shanghai B shares firmer, helped by domestic buying of market heavyweight Zhejiang Southeast Electric Power.								
Colombia	IBB	1499.55	(c)	1499.55	1633.72 16/10	844.41 2/1	na	na
Czech Republic	PX 50	517.9	508.4	503.1	628.80 25/2	476.70 21/5	na	na
Cokoladovny's good results helped index rise 1.22 per cent.								
Denmark	CopenhagenSE	622.14	624.46	618.36	692.81 6/10	470.14 2/1	1.39	19.7
Novo Nordisk rose after US court ruling but international nervousness hits KFX index.								
Egypt	Cairo SE Gen	363.97	362.89	(c)	– –	– –	na	na
Hermes index was hit as investors sold to raise funds ahead of privatisations.								
Finland	HEX General	3319.53	3547.55	3443.47	3890.81 22/10	2403.28 2/1	2.22	15.5
Nokia extended its losses on Wall Street weakness and FOX index declined.								
France	SBF 250	1804.77	1808.81	1782.81	2003.43 31/7	1633.19 2/1	2.61	16.7
	CAC 40	2774.90	2787.96	2739.30	3094.01 3/10	2256.97 2/1		
Lorry drivers' strike added to Middle East tension and a weak dollar to push CAC index down.								
Germany	FAZ Aktien	1272.68	1279.41	1255.71	1481.44 31/7	988.21 2/1	1.51	19.2
	Commerzbank	3738.90	3750.60	3677.90	4336.70 31/7	2875.80 2/1		
	DAX‡	3812.45	3854.07	3726.69	4438.93 31/7	2848.77 2/1		
Weaker dollar weighed on stocks but Krupp and Thyssen merger pushed their shares higher.								
Greece	Athens SE	1613.78	1541.10	1488.53	1794.14 8/10	954.54 2/1	3	16
Easing money market rates and steady declines helped market rise 4.72 per cent.								
Hong Kong	Hang Seng	10780.78	11255.11	10623.78	16673.27 7/8	9059.89 28/10	3.25	11.5
	HSCC Red Chip	2315.29	2478.21	2199.58	4119.55 27/8	1665.38 28/10		
Slammed into reverse after early gains, as investors rushed to sell after the recent rebound, fearing a new downturn.								
Hungary	Bux	7258.76	7375.97	7134.82	8483.80 6/8	4281.30 6/1	na	na
Arbitrage closings and profit-taking saw BUX index down 1.59 per cent.								
India	BSE Sens.	3805.95	3790.82	(c)	4548.02 5/8	3225.24 2/1		
	Crisil 500	700.77	700.80	(c)	843.28 5/8	622.71 2/1	na	na
Domestic institutional buying and foreign funds' dealings pushed index up ½ per cent.								
Indonesia	Jakarta Comp.	484.84	501.71	500.41	740.83 8/7	447.90 28/10	2.33	14.2
Composite to benefit from IMF-led reform package in early session, but off in late trading after plunge in Hong Kong.								
Ireland	ISEQ Overall	3692.08	3700.75	3673.61	3984.08 14/10	2726.07 2/1	2.36	18.1
Banking stocks fell in later trading and the market suffered in line with international nervousness.								
Israel	Mishtanim 100	288.45	290.48	(c)	311.76 6/8	214.15 2/1	na	na
Volatility in the US market hit the Mishtanim index, which fell by 0.7 per cent.								
Italy	BCI Comit 30	221.07	222.56	217.37	242.86 26/9	155.74 2/1	1.66	19.3
	Banca Com Ital	942.12	943.88	928.55	1006.69 22/10	642.55 2/1		
	Mibtel General	14995.0	15089.0	14764.0	16059.00 26/9	10488.00 2/1		
Profit-taking after gains on Monday saw the Mibtel index off 0.6 per cent.								
Japan	Nikkei 225	16500.10	(c)	16458.94	20681.07 16/6	16312.69 28/10	0.81	44.3
	Nikkei 300	249.73	(c)	248.03	303.71 28/7	246.47 28/10		
	Topix	1282.96	(c)	1277.12	1593.28 26/6	1263.11 28/10		
	2nd Section	1396.71	(c)	1400.04	1948.25 30/6	1372.32 28/10		
Gains posted overseas from Friday overcame anxieties prompted by the failure of second-tier brokerage Sanyo Securities.								
Jordan	Amman SE	(c)	170.77	(c)	– –	– –	na	na
Malaysia	KLSE Comp.	725.94	716.72	664.69	1271.57 25/2	647.32 28/10	2.49	12
Hong Kong setback clipped early gains of 4.7 per cent. But brokers said sentiment was benefiting from stable currencies.								
Mexico	IPC	4835.31	4949.68	4647.84	5386.35 16/10	3359.48 2/1	1.36	14.2
Overnight falls on Hong Kong led to profit-taking to push market down.								
Morocco	CASA	660.19	661.19	661.98	669.75 23/4	461.90 3/1	na	na
Blue chips rose, led by Samir, oil refinery company, to push market up in thin volume.								
Netherlands	CBS TtlRtnGen	1036.4	1050.7	1022.9	1184.80 7/8	730.80 2/1	2.12	22.1
	CBS All Shr	594.5	602.7	586.7	684.40 7/8	429.00 2/1		
Weaker guilder against the dollar saw the market lower but KLM rose after results.								
New Zealand	Cap. 40	2470.02	2380.20	2355.83	2635.48 22/10	2162.01 28/10	4.44	18.3
Brokers said the change in prime minister could even be positive, but stronger overseas markets provided the boost.								
Nigeria	SE All-Share	(u)	6524.09	6554.77	– –	– –	na	na
Lever Brothers was the only riser, but pushed the market higher for first time in a week.								
Norway	Oslo SE Ind	2154.03	2173.88	2143.78	2287.56 22/10	1839.03 2/1	1.83	15.3
Wall Street and Hong Kong dominated sentiment and market falls.								
Pakistan	Karachi SE	1856.59	1852.77	1875.01	2067.98 22/10	1341.31 7/1	na	na
Stocks rebounded to finish slightly higher amid covering of short positions on the settlement day, dealers said.								
Peru	Lima Gen	1897.29	1884.45	1858.03	2289.40 10/7	1429.70 2/1	na	na
Philippines	Manila Comp	1881.14	1825.26	1818.09	3447.60 3/2	1740.18 28/10	1.39	11.3
Shares propped up by gains on Wall Street and regional markets as well as a rise in currencies, brokers said.								
Poland	WIG	15976.0	15682.0	15371.9	18339.40 18/2	14421.80 6/1	1.55	10.8
Elektrim rose the daily maximum and market rose in good volume.								
Portugal	BVL 30	3442.98	3448.41	3425.33	3888.61 3/10	2165.57 2/1	1.73	24.6
	PSI 20	8016.63	8021.02	7970.93	8803.52 3/10	5152.34 2/1		
Market closed off session lows after dull session.								
Russia	RTS	441.61	440.82	422.35	571.66 6/10	213.38 6/1	na	na
Low liquidity and caution saw leading stocks down but index edged up.								
Singapore	SES All-S'pore	427.90	424.93	400.40	573.03 17/2	380.78 28/10	2.11	14.3
	Straits Times	1713.76	1703.95	1586.07	2271.88 30/1	1487.03 28/10		
Shares lost most of their morning gains to end only a tad firmer after investors sold on fears of a downward correction.								
Slovakia	SAX	174.50	175.44	179.92	208.84 21/3	164.81 22/7	na	na
Losses at steelmaker VSZ pushed index lower.								
South Africa	JSE Gold	896.8¶	898.6	896.2	1698.10 27/2	881.00 28/10	2.82	13.6
	JSE Indl.	8320.4¶	8287.7	8130.4	9314.20 7/8	7433.30 28/10		
Shares claw back losses to close in positive territory after international institutions bought blue chip stocks.								
South Korea	KoreaCmpEx**	542.13	511.66	470.79	792.29 17/6	470.79 31/10	2.7	12.1
Sharply higher on hopes of sustained rally driven by increased retail inflows and slowing foreign sales, dealers said.								
Spain	Madrid SE	586.95	586.46	560.94	640.20 1/10	434.54 2/1	2.54	19.2
Early gains fizzled out after profit-taking on Wall Street.								
Sri Lanka	CSE All Share	730.30	729.70	728.50	868.70 31/7	606.70 2/1	na	na
Flat as both local and foreigners took to the sidelines ahead of the government's 1998 budget, due today, dealers said.								
Sweden	AffarsvardnGen	2952.6	2984.0	2881.7	3315.80 7/8	2378.50 2/1	1.86	21
Volatility on Ericsson options decreased but shares deepened losses after US declines.								
Switzerland	SMI Index	5538.2	5581.6	5467.2	6012.80 8/7	3922.80 7/1	1.15	21.6
	SPI General	3514.89	3535.84	3474.77	3770.16 3/10	2506.22 6/1		
Shares finished lower as market took its cue from other European bourses.								
Taiwan	WeightedPr.**	7785.32	7646.35	(c)	10116.84 26/8	6844.75 6/1	1.05	26.7
Electronics sector, which had plummeted more than 50 per cent since August, added 4.9 to Monday's 6.4 per cent gain.								
Thailand	Bangkok SET	478.33	447.44	447.21	858.97 22/1	445.09 30/10	5.03	9.4
Stocks surged as investors reacted positively to news that the prime minister would resign, brokers said.								
Turkey	IMKB Nat 100	2972.00	2846.0	2846.00	3543.88 23/10	865.00 2/1	2.07	15.9
Technical rebound saw shares post strong gains.								
Venezuela	IBC	9534.45	9405.86†	9269.91	10817.13 17/10	6061.98 12/3	na	na
Zimbabwe	ZSE Industrial	(u)	10165.87	(u)	12081.55 5/8	8838.60 2/1	na	na
Buyers in blue chips pushed the market higher despite drought fears.								
WORLD	FT/S&P World(S)	(u)	252.50	247.63	268.09 7/10	216.81 14/4	na	na
	MS Capital IntS	926.0*	928.6	911.6	981.80 31/7	784.50 14/4	na	na
CROSS-BORDER	Eurotrack 100	2520.01	2516.45	2492.02	2784.80 7/8	1863.80 2/1	na	na
	FTSE E100	2138.08	2155.89	2108.26	2365.95 7/8	1582.98 2/1	na	na
	HSBC JC Drgn	(u)	285.94	267.38	434.83 6/8	239.55 28/10	na	na
	ING Barngs Emrg	(u)	148.69	144.52	186.81 9/7	142.38 28/10	na	na

** Sat Nov 1 : Taiwan Weighted Price (c) ; Korea Comp Ex 487.22. §§ Montreal. ♦ Toronto. (c) Closed. (u) Unavailable. ‡ IBIS/DAX after-hours index: Nov 4 - 3812.45 -41.62. † Correction. * Calculated at 15.00 GMT. ● Excluding bonds. ‡ Industrial, plus Utilities, Financial and Transportation. ♦ The DJ Ind. index theoretical day's highs and lows are the averages of the highest and lowest prices reached during the day by each stock; whereas the actual day's highs and lows represent the highest and lowest values that the index has reached during the day. (The figures in brackets are previous day's). ¶ Subject to official recalculation. Yields and P/E ratios are based on Datastream Total Market Indices. Midsession.

NASDAQ NATIONAL MARKET

4 pm close November 4

Stock	Div.	P/E	Sls 100s	High	Low	Last	Chng
[illegible]							

AMEX PRICES

4 pm close November 4

Stock	Div.	P/E	Sls 100s	High	Low	Close	Chng
[illegible]							

EASDAQ

EASDAQ is a fully regulated independent pan European Stock Market focused on high growth companies with international operations. The shares of companies on the EASDAQ Stock Market can be bought and sold through EASDAQ Members.

Company	Mid price	Change on day	Volume	High	Low	Company	Mid price	Change on day	Volume	High	Low
ActivCard	US$3.125		10100	8.25	2.375	Innogenetics	US$15.875	+0.125	117497	15.875	9.875
Artwork Systems	US$9		10075	11.125	7.875	Lernout & Hauspie	US$51.375	-1	18455	56.625	35
Chemunex	FFr12.5		83000	18	10	Melexis	US$8	+0.0625	52300	9.125	7.1875
Debonair Holdings	GBP3.75	-0.05	5700	7.15	3.75	Mercer Int'l	US$10.375		0	12.875	8.125
Dr Solomon's ADS	US$31.5	+0.25	765	32.375	18.875	NTL	US$26.625		0	38.375	20.5
EDAP TMS	US$7.1875		0	9.125	6.5	PixTech	US$3		0	6.125	3
Espace Prod. Int.	FFr98.75	+0.37	2575	117	98	Schoeller-Bleckmann	Sch1460		570	1692	900
Esprit Telecom ADS	US$5.125		5500	12.25	4.875	Topcall Int'l	Sch4305		35	5000	3065
Gruppo Formula	ITL21250	-1300	71300	22600	20850	Turbodyne Technol.	US$4.95		0	6.25	3.73

Prices for 4/11/97. Please note that mid prices are now used to calculate highs and lows. Information about EASDAQ can be found on the Web site at: HTTP://WWW.EASDAQ.be EASDAQ offices are located in Brussels (Tel. 32-2 / 227 65 20) and in London (Tel. 44-171 / 489 9890)

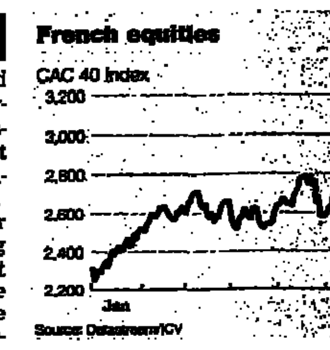
Calm returns, but worst may not be over

WORLD OVERVIEW

An air of normality started to return to world stock markets yesterday as the massive swings seen in recent weeks appeared to be dissipating, *writes Philip Coggan.*

Apart from another 4 per cent plus decline in Hong Kong and a 6.9 per cent rebound in Thailand on the back of the change in prime minister, most index movements were modest.

After the phenomenal 232 point rise in the Dow Jones Industrial Average on Monday, there was bound to be a reaction yesterday and, sure enough, the Dow opened lower. But the decline was limited, especially by recent standards, and did little to upset sentiment in Europe.



There was some comment from Otmar Issing, Bundesbank chief economist, about the need to lay the foundations for an inflation-free monetary union. But few economists expect German interest rates to rise before the end of the year.

The DAX slipped 1.6 per cent in electronic trading, weighed down by a weaker dollar, but in Paris, the CAC 40 dropped by less than 0.5 per cent, with the lorry drivers' dispute so far having little effect on the economy.

It may be too early to say that investors have seen the worst of the market setback. The next big test for sentiment is likely to come from the US non-farm payroll figures, which will be published on Friday.

Michael Hughes, BZW *group economic adviser,* said: "In economic terms, the worst is not over in Asia. The exchange rate peg is still inappropriate for Hong Kong, the banking problems in Thailand and Indonesia have not gone away and you're seeing the impact of the pressure on the financial sector in Japan."

What had changed, said Mr Hughes, was that "the gap between the valuation of equities and bonds in the Western markets, which opened up during the summer, has now closed again. That makes it a correction, rather than a bear market."

The European team at Goldman Sachs has used the *market setback to change* the structure of its recommended portfolios. "We believe European equity portfolios should be more domestic, as the risks are from slower external growth; more defensive, as the risks to the market are from earnings disappointment and visibility of earnings is a major protection; and more bond sensitive as the risks of higher bond yields have diminished."

"Our response," adds Goldman, "is to increase recommended weights in financial services and utilities and to reduce weights in energy, capital goods and basic industries."

In country terms, Goldman has reduced weights in Germany and Scandinavia and increased weights in the UK, Belgium and France.

London market, Page 30

EMERGING MARKET FOCUS

Safe Singapore back in favour

Singapore has for years been a safe *haven for* south-east Asian investors. During the recent bull market, the city state's reputation for staid conventionality was sometimes alienating; many Singaporeans preferred to punt elsewhere – especially in Malaysia and Indonesia.

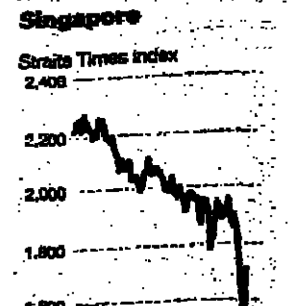
Now, however, as financial turmoil grips the region, prudence is once again a virtue. But there are more facets to Singapore's attractiveness than its relative safety. The city state is experiencing a healthy export recovery and there are even signs that south-east Asia's crisis could play to its advantage.

Exports, which drive the economy, have benefited from a surge in US demand for electronics over the past few months. By volume, Singapore's exports climbed 10.9 per cent in the third quarter of this year from a year earlier. This compared with growth of 6.5 per cent in the second quarter and a contraction of 0.6 per cent in the first quarter.

"As long as US growth remains strong, the export pick up should drive manufacturing growth, which is crucial to the economy," said Neil Saker, regional economist at SocGen-Crosby in Singapore.

Pessimists, however, make the point that Singapore is too vulnerable to the slowdown in growth among its south-east Asian neighbours to warrant confidence. To an extent, this is true.

Singapore's port and airport, important engines of growth, rely heavily on regional traffic. Its flagging retail sector has already been hit by a decline in shoppers from Indonesia, Malaysia and Thailand. Segments of its property market, such as sales of luxury condominiums, have in the past been boosted by Indonesian demand.



Three of its "big four" banks have a loan exposure to Malaysia of at least 15 per cent, and the one bank not exposed to Malaysia, the Development Bank of Singapore, has been active in US dollar lending offshore – another area considered particularly risky.

But most analysts say that, while Singapore is not immune from the region's problems, it is unlikely to be as hard hit as its neighbours. Singapore has a *strong current* account surplus, relatively low interest rates, low inflation and its currency has depreciated much less than those of the countries around it.

All this, in a sense, defines a rare opportunity for Singaporean companies seeking to expand abroad.

"Most of the south-east Asian countries are going to be capital hungry. Singapore is the only country in the region which is a capital exporter," said Rajeev Malik, senior economist with Jardine Fleming International in Singapore.

It will take some time for the fruits of any such regionalisation to be realised, but Singapore does have more immediate attractions. The average forward price/earnings ratio of 13.8 stands at a 27 per cent discount to its five year average.

James Kynge

Dow steady as investors sit tight

AMERICAS

US stocks edged lower in choppy morning trading, pushing the main stock indices into reverse after Monday's explosive 232 points rally, *writes John Labate in New York.*

However, the selling pressure was said to be decidedly mixed. "There's a sorting out process *going on,* with investors looking at each sector and picking stocks within them," said Joseph Battipaglia, chief investment strategist of Gruntal & Co.

The computer networking sector provided a case in point with Newbridge Networks plunging more than 14 per cent or $8 9/16 to $49 11/16 after a profits warning. The sell-off spread to most other networking stocks but bypassed industry leader Cisco, which traded $1/4 higher at $85.

By early afternoon the Dow Jones Industrial Average was off 8.84 at 7,665.55. The broader Standard & Poor's 500 index was down less than one point at 938.27.

Major cyclical stocks were mixed as Allied Signal gained $1 3/16 at $37 1/4 after the company announced the sale of one of its units for $710m. But DuPont shares sank $2 5/16 to $57 11/16 after the group announced the appointment of its new chief financial officer.

"Investors here have experienced a recovery in confidence relative to a week ago, for US fundamentals," said A. Marshall Acuff of Smith Barney.

Morning bond prices traded lower as traders focused on a new supply of bills and notes to be auctioned this week.

Banking stocks were modestly lower, drifting down after Monday's buying spree. Some sectors continued to weaken. Paper producers, which share a high exposure to overseas markets, were mostly lower. International Paper lost $1 at $47 1/8. Weyerhaeuser came off $1 3/16 to $49 *in spite of* an upgrade to "strong buy" by a Salomon Brothers.

Booksellers Borders Group surged nearly 11 per cent to $28 3/4 after announcing a launch date for the company's online book service.

Technology shares were mixed. The Nasdaq composite index eased by less than one point at 1,629.01. Chip maker Texas Instruments gained $4 5/8 at $119 3/4 while software leader Microsoft fell 1/4 at $134.

TORONTO moved lower as dealers concentrated on a severe shake-out for Newbridge Networks following a profits warning from the software leader. The 300 composite index was off 21.03 at 6,924.80 at noon.

Newbridge's announcement that second-quarter earnings to date were disappointing came as a bombshell. The shares fell headlong as investors stampeded for the exits. At the close of morning trading, they were trailing by C$11.75 at C$70.25.

Newcourt Credit provided some relief, rising C$4.05 to C$53.80 on news of merger talks with AT&T Capital Corporation, but the broad market moved steadily lower throughout the early session.

Mexico City falls back

Brazilian shares continued to advance after Monday's near 10 per cent gains, but most leading markets across Latin America gave ground yesterday morning.

MEXICO CITY saw modest profit-taking after a two-day rally and the IPC index retreated 28.18 to 4,821.50 at midsession.

Dealers said volume was thin. Telmex lost 10 centavos to 19.94 pesos.

SANTIAGO moved lower in early trading as investors waited for news of the October inflation figures.

Power group Enersis fell 7 pesos to 268 pesos and paper group CMPC gave up 40 pesos to 4,210 pesos. The IPSA index was off 1.15 at 118.24 at midsession.

SAO PAULO picked up where it left off on Monday, climbing steadily higher. But volume was said to have tailed away and much *of the early momentum* was credited to wash-over buy orders from the previous session.

At midsession, the Bovespa index was ahead 135 or 1.4 per cent at 9,993.

Bourses ease in subdued trade

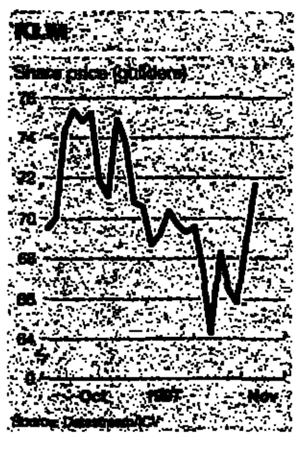
EUROPE

By recent standards, bourses took the day off yesterday. **PARIS** traded narrowly as the lorry drivers' strike entered its third day. Volume was unexciting at 11.2m shares and the CAC 40 index ended off 13.06 at 2,774.90 having traded within a range of just 30 points.

"Wall Street's overnight bounce always looked suspect and the lack of follow through came as no surprise. There is a feeling that matters are already starting to go on hold ahead of Friday's US employment data," said one broker.

Motors and retailers were at the forefront of haulage strike concerns. One theory in the market was that auto inventories could quickly be depleted. Renault slipped FFr2.40 to FFr2,278 and Peugeot FFr9.00 to FFr663.

Trading among retailers was mixed. Promodes came off FFr17.00 at FFr1,863 but supermarkets leader Carrefour rose FFr69.00 to FFr3.124. Talk of petrol rationing left Total FFr18.00 or 2.8 per cent lower at FFr634.



GAN hardened FFr1.30 to FFr122.8 after a French press report revived interest the insurer pending privatisation. A long line of suitors was said to be ready to drive up the price the government will seek for its stake. SGS Thompson gained FFr12.00 to FFr441 on news of collaboration with UK satellite TV giant BSkyB.

FRANKFURT fell following Monday's rises, as investors reacted to a weak dollar and an uncertain opening on Wall Street. The Ibis-indicated DAX index fell 62.93 to close at 3,784.8 during moderate trading.

Making the corporate news was Adidas, the sportswear company, which unveiled third-quarter results ahead of market expectations. Profits for the third quarter rose 64 per *cent to DM307m, a record* amount for the company. But the share price was subdued following the sale of 1m shares by Robert Louis-Dreyfus, chief executive, and another director. Adidas closed at DM249.0, up DM0.2 on the day.

Elsewhere, steelmakers Thyssen and Krupp confirmed recent market speculation when they announced that they will merge. Details of the alliance will be finalised by the end of November. Thyssen closed up 50 pfennigs at DM411.0 while Krupp built on Monday's rise to move to DM374.0, up DM23.8.

ZURICH followed the rest of Europe by recording a small drop as the SMI index fell 43.4 to close at 5,538. Banks were the centre of attention. *UBS rose SFr30 to* SFr1,675 following market rumours about an imminent big announcement. UBS also accounted for a third of yesterday's Swiss options market volume.

The CS Group was under scrutiny *as well after* newspaper reports suggested that its investment banking arm, CS First Boston, was the sole remaining bidder for BZW. It closed down SFr2 at SFr205.5.

Drugs headed the activity charts. Novartis gained SFr31.00 to SFr2,185 while Roche came off SFr60.00 at SFr12,560.

AMSTERDAM witnessed a soaraway performance at KLM but otherwise plodded steadily lower. The AEX index closed down 13.82 at 868.95 in dull volume.

Amid widespread talk of broker upgrades, KLM jumped Fl 2.90 or 4.2 per cent to Fl 71.80 following better-than-expected six-month results from the airline. Goldman Sachs, which has *had the shares as a "buy" for* some time, lifted its target price of Fl 90.00.

Nedlloyd and Hagemeyer suffered from their exposure to Asian demand. Nedlloyd came off Fl 3.00 or 5.2 per *cent to Fl 55.00 and Hage*meyer, which carried out a placing earlier this year at Fl 106 a share, lost Fl 2.60 to Fl 82.70.

MILAN fell victim to profit-taking as investors started selling after Monday's gains. The Mibtel index fell 93 to 14,996 although trading was thin.

Marzotto, the textile manufacturer, bucked this trend to rise L883, closing at L19,710 after reporting better-than-expected third-quarter figures as profits grew by 19.6 per cent.

MILAN saw choppy trading in power group Endesa which ended 1.3 per cent lower at Pta2,690. The broad market experienced limited volume and at the close of trading the general index was up a bare 0.49 at 566.95.

Selected blue chips came in for buying. Telefonica gained almost 1 per cent to Pta4,070 and Argentraia put on 1.6 per cent at Pta8,480. Iberdrola gained 1.4 per cent to Pta1,775.

ATHENS climbed back above 1,600 as the drachma stabilised and local money market rates eased. The general index gained 72.68 or 4.7 per cent to 1,541.10 in *heavy* turnover of Dr34.5bn.

ISTANBUL was also in upbeat mood, rallying 126 or 4.4 per cent to 2,972 on the IMK-National index. Trading volume was *almost 9 per* cent higher than on Monday.

FTSE Actuaries Share Indices — European series

November 4

National & Regional Markets	Ecu Index	Day's %	change points	Yield gross %	xd adj	Total rets (Ecu)
FTSE Eurotop 300	916.95	-0.98	-9.08	2.41	0.00	921.43
FTSE Eurotop 100	2138.08	-0.83	-17.81	–	–	–
FTSE Eurotop 300 Regions						
300 UK	926.98	-0.96	-9.02	3.30	0.00	935.82
300 Ex-UK	911.82	-0.99	-9.08	1.89	0.00	913.86
300 Eurobloc	898.61	-1.08	-9.77	2.12	0.00	901.61
300 Ex-Eurobloc	930.69	-0.91	-8.56	2.61	0.00	936.27
FTSE Eurotop 300 Economic Groups						
Resources	940.52	-1.26	-12.02	2.89	0.00	952.05
General Industries	902.32	-0.90	-8.22	2.17	0.00	903.81
Consumer Goods	898.99	-0.70	-6.28	2.01	0.00	900.53
Services	942.31	-0.97	-9.23	2.32	0.00	946.87
Utilities	923.94	-0.62	-5.80	3.18	0.00	929.22
Financials	917.61	-1.24	-11.54	2.44	0.00	922.09

Base value 1000. More information on http://www.ftse.com. 'FTSE' and 'Footsie' are registered trade marks of the London Stock Exchange and The Financial Times. 'Eurotop' is a registered trade mark of the Amsterdam Stock Exchange. FTSE Eurotop Indices are compiled by FTSE International. © FTSE International Limited 1997. All rights reserved.

Written and edited by Jeffrey Brown, Alexander Stevenson and James Montgomery.

SOUTH AFRICA

Continued positive pressure from the futures market sent Johannesburg higher for the third session running. The all-share index ended 19.8 ahead at 6,749.7.

Industrials rose 32.7 to 8,320.4 and the golds index, which spent much of the day in negative territory, finished 1.8 higher at 896.8. Among blue chips, Anglo American recovered from a low of R212 to end with a R2 gain at R220.

Futures raid hits Hong Kong

ASIA PACIFIC

A wobble for the Hong Kong dollar coupled with futures-led selling sent **HONG KONG** steeply lower in late trading.

The Hang Seng index, which was more than 400 points higher at one stage following Wall Street's strong overnight gains, ended off 474.33 or 4.2 per cent at 10,780.78.

China stocks also fell. The red-chip index shed 6.6 per cent to partly reverse the 22 per cent gains of the previous two sessions. The H shares index lost 5.9 per cent.

Among leading stocks, HSBC fell HK$2.00 to HK$183.50 and Sun Hung Kai HK$2.25 to HK$58.25. HK Telecom declined HK$1.30 to HK$14.00.

TOKYO was initially buoyed by Wall Street's *strong performance* on Monday, but then fell back on concerns about the impact of Sanyo Securities' bankruptcy, *writes Paul Abrahams.* The Nikkei 225 index ended 41.16 higher at 16,500.10 after a session high of *16,640.96.*

The mood was generally cautious, with turnover low at 341m shares. The broader-based Topix index added 0.46 per cent to 1,282, while the Nikkei 300 index rose 0.69 per cent to 249.73.

CHANGES ON THE DAY

	% change
Bangkok	+6.9
Hong Kong	-4.2
Jakarta	-1.4
Kuala Lumpur	+1.3
Manila	+3.3
Seoul	+6.0
Singapore	+0.6
Sydney	+1.9
Taipei	+1.8
Tokyo	+0.3
Wellington	+3.3

The securities sector gained 0.5 per cent, but that masked highly varied performances. Shares in the big four houses were all up, but those of smaller brokers fell sharply following the bankruptcy of Sanyo Securities, a second tier company. Sanyo's shares were "ask-only" at Y54, compared with Friday's close of Y84. In April the shares stood at Y510 and compared with a 1987 peak of more than Y2,700.

Other small brokers pulled *lower included National* Securities off Y15 at Y110, Wako Securities down Y23 at Y292, Yamatane Securities down Y9 at Y99 and Dai-Ichi Securities down Y7 at Y109.

Mitsubishi Motors announced a 36 per cent drop in October domestic car sales after market hours, but the shares were off Y16 at Y512. Nissan, Toyota and Honda were all up despite an overall 13 per cent drop in Japanese automotive sales last month. Drugs leader Sankyo fell 6.8 per cent to Y3,700 after US healthcare group Warner-Lambert warned one of its diabetes drugs could cause liver damage.

In Osaka, the OSE index *rose 47 to 17,470* in volume of 17.06m shares.

WELLINGTON jumped 79.82 or 3.3 per cent to 2,470.02 on the 40 capital index. Brokers said Wall Street's overnight gains were the main driving force rather than election speculation following the resignation of the prime minister Jim Bolger. NZ Telecom rose 47 cents to NZ$8.55 on turnover of *NZ$10.7m.*

BANGKOK reacted positively to the resignation of *the prime minister,* *Chavalit* Yongchaiyudh, whose coalition is perceived to be responsible for Thailand's economic problems. The baht's strong performance *also encouraged investors* as the SET index moved up 30.89 or 6.9 per cent to 478.33. The main beneficiary was the banking sector, which rose by almost 9 per cent.

JAKARTA ended a volatile day down as foreign investors failed to match local enthusiasm for the IMF-led reform package. The composite index closed down 6.87 or 1.4 per cent at 494.85 after a session high of 506.03. Brokers said the late decline was led by foreign sellers reacting to the falls in Hong Kong.

SEOUL had its third straight rising session as investors began to believe that the recent rally could be sustained. The composite index rose 30.47 or 5.9 per cent to 542.13. Positive sentiment was helped by indications of continued government support for the market.

Blue-chip stocks were the biggest gainers, with both Samsung Electronics and LG Semicon going limit-up at *47,600 won and 19,800 won* respectively.